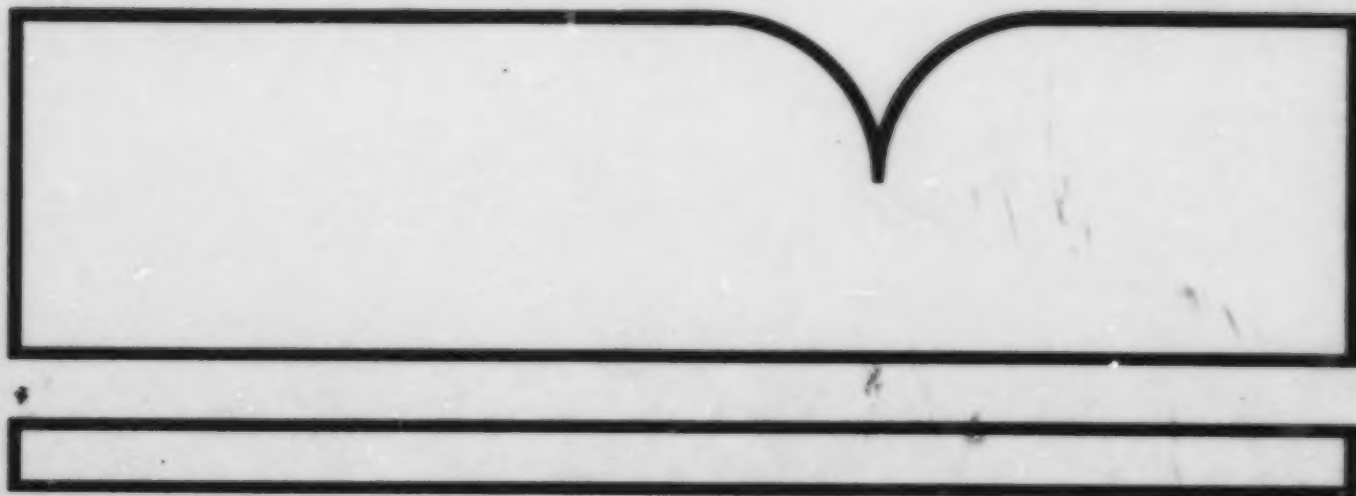


Testing of New Technology
Three-Way Catalyst Equipped
Vehicles in Los Angeles

Automotive Environmental Systems, Inc.
Westminster, CA

Prepared for
Environmental Protection Agency
Ann Arbor, MI

Aug 80



U.S. Department of Commerce
National Technical Information Service

NTIS.

EPA 460/3-80-027

PR81-138075



AESi

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.

A subsidiary of *Clayton* Manufacturing Company

TECHNICAL REPORT DATA (Please read Instructions on the reverse before completing)		
1. REPORT NO. EPA-460/3-80-027	2.	3. RECIPIENT'S ACCESSION NO. 8801 138075
4. TITLE AND SUBTITLE Testing of New Technology: Three-Way Catalyst Equipped Vehicles in Los Angeles	5. REPORT DATE August 1980	6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) Alan D. Jones	8. PERFORMING ORGANIZATION REPORT NO.	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Automotive Environmental Systems 7300 Bolsa Avenue Westminster, California 92683	10. PROGRAM ELEMENT NO.	11. CONTRACT/GRANT NO. 68-03-2881, Task 1
12. SPONSORING AGENCY NAME AND ADDRESS Environmental Protection Agency Office of Mobile Source Air Pollution Control Emission Control Technology Division Ann Arbor, Michigan 48105	13. TYPE OF REPORT AND PERIOD COVERED Final	14. SPONSORING AGENCY CODE
15. SUPPLEMENTARY NOTES		
16. ABSTRACT This report presents and summarizes exhaust emissions test data and other related information obtained in the testing and inspection of 116 in-use passenger cars. The test fleet consisted of 1979-1980 automobiles equipped with three-way catalyst emission control systems. The test vehicles were obtained randomly from private owners in the Los Angeles and Orange County areas. The testing was completed August 1980. Each vehicle was tested in as-received condition and given an underhood emissions control component inspection. The test sequence consisted of the 1975 Federal Test Procedure, a Highway Fuel Economy test, a Bagged Idle test, a 50 mph Cruise test, a ~~Low~~ ^{For} ~~Low~~ Speed Idle test and a Loaded Two-Mode test. Twenty-five of the 116 vehicles received an evaporative emissions test using the SHED technique. Nineteen of the 116 vehicles received restorative maintenance repairs and additional testing. Twenty-three of the 116 vehicles were specially selected Cadillacs with four of these undergoing selective malperformance testing.		
17. KEY WORDS AND DOCUMENT ANALYSIS		
a. DESCRIPTORS Automobiles Inspection Maintenance Exhaust emissions Exhaust gases Tests Catalytic ~~converters~~ converters	b. IDENTIFIERS/OBJECT ENDED TERMS Three-way catalysts	c. COSATI Field/Group
18. DISTRIBUTION STATEMENT Release unlimited	19. SECURITY CLASS (This Report) Unclassified	21. NO. OF PAGES
	20. SECURITY CLASS (This page) Unclassified	22. PRICE

TESTING OF NEW TECHNOLOGY
THREE-WAY CATALYST EQUIPPED VEHICLES
IN LOS ANGELES

by

Alan D. Jones

Automotive Environmental Systems
7300 Bolsa Avenue
Westminster, California 92683

Contract No. 68-03-2881, Task 1

Prepared for

ENVIRONMENTAL PROTECTION AGENCY
Office of Air, Noise, and Radiation
Office of Mobile Source Air Pollution Control
Emission Control Technology Division
Ann Arbor, Michigan 48105

August 1980

This report is issued by the Environmental Protection Agency to report technical data of interest to a limited number of readers. Copies are available free of charge to Federal employees, current contractors and grantees, and nonprofit organizations - in limited quantities - from the Library Services Office (MD-35), Research Triangle Park, North Carolina 27711; or, for a fee, from the National Technical Information Service, 585 Port Royal Road, Springfield, Virginia 22161.

This report was furnished to the Environmental Protection Agency by Automotive Environmental Systems, Westminster, California 92683, in fulfillment of Contract No. 68-03-2881, Task 1. The contents of this report are reproduced herein as received from Automotive Environmental Systems. The opinions, findings, and conclusions expressed are those of the author and not necessarily those of the Environmental Protection Agency. Mention of company or product names is not to be considered as an endorsement by the Environmental Protection Agency.

ABSTRACT

This report presents and summarizes exhaust emissions test data and other related information obtained in the testing and inspection of 116 in-use passenger cars. The test fleet consisted of 1979-1980 automobiles equipped with three-way catalyst emission control systems. The test vehicles were obtained randomly from private owners in the Los Angeles and Orange County areas. The testing was completed August 1980.

Each vehicle was tested in as-received condition and given an underhood emissions control component inspection. The test sequence consisted of the 1975 Federal Test Procedure, a Highway Fuel Economy test, a Bagged Idle test, a 50 MPH Cruise test, a Four-Speed Idle test and a Loaded Two-Mode test. Twenty-five of the 116 vehicles received an evaporative emissions test using the SHED technique. Nineteen of the 116 vehicles received restorative maintenance repairs and additional testing. Twenty-three of the 116 vehicles were specially selected Cadillacs with four of these undergoing selective malperformance testing.

ACKNOWLEDGEMENTS

Automotive Environmental Systems, Inc. wishes to extend its appreciation and special thanks to Mr. Matthew M. Macocha, Task Officer, Mr. Thomas Tupaj, Project Officer, and Mr. John T. White, Program Manager, for providing counsel, technical guidance, and understanding throughout the program.

We also wish to recognize the assistance of the manufacturers of the automobiles which were tested in this project.

CONTENTS

Abstract	iii
Acknowledgements	v
1. Introduction	1
2. Technical Discussion	3
2.1 Program Objectives.	3
2.2 Program Design.	3
2.3 Test Vehicle Procurement.	3
2.3.1 Test Vehicle Selection.	3
2.3.2 Incentives for Participation.	4
2.3.3 Test Vehicle Handling	4
2.4 Facilities and Equipment.	4
2.4.1 Test Location	4
2.4.2 Constant Volume Sampler	4
2.4.3 Emission Analysis Console	5
2.4.4 Sealed Housing for Evaporative Determinations (SHED).	6
2.4.5 Chassis Dynamometer	6
2.4.6 Data Acquisition System	7
2.4.7 Driver's Aid.	7
2.4.8 Miscellaneous Equipment	7
2.5 Equipment Qualification, Calibration and Crosscheck	8
2.5.1 Constant Volume Sampler	8
2.5.2 Emission Analysis Console	9
2.5.3 Sealed Housing for Evaporative Determinations (SHED).	10
2.5.4 ECE-50 Chassis Dynamometer.	11
2.5.5 Data Acquisition System	11
2.5.6 Miscellaneous Equipment	11
2.6 Test Procedures	11
2.6.1 Vehicle Preparation	11
2.6.2 Equipment Preparation	12
2.6.3 Federal Exhaust Emission Test Procedure	12
2.6.4 Bagged Idle	13
2.6.5 50 MPH Cruise	13
2.6.6 Highway Fuel Economy Test	13
2.6.7 Four-Speed Idle Test.	13
2.6.8 Loaded Two-Mode Test.	14
2.6.9 After-Test Procedures	14

2.6.10	Restorative Maintenance	15
2.6.11	Selective Malperformance.	15
2.6.12	Daily Test Schedule	15
2.7	Data Handling	15
2.7.1	Data Collection	15
2.7.2	Data Processing	15
2.7.3	Quality Control	16
2.7.4	Calculation of Results.	16
3.	Discussion of Test Results	19
3.1	Test Fleet Description.	19
3.2	Federal Test Procedure Emissions and Fuel Economy	19
3.3	Vehicles Meeting Exhaust Emission Standards	19
3.4	Evaporative Emissions	19
3.5	Bagged Idle	20
3.6	50 MPH Cruise	20
3.7	Highway Fuel Economy Test Emissions	20
3.8	Four-Speed Idle Test Emissions.	20
3.9	Loaded Two Mode Test Emissions.	20
3.10	Maladjustment and Disablement Inspection Results.	20
	List of Figures.	21
Figure 1	Vehicle Procurement Flow Chart	23
Figure 2	Testing Flow Chart	25
Figure 3	Propane Injection Diagnostic Procedure for Three-Way Catalyst Vehicles.	27
Figure 4	5-Step Restorative Maintenance Testing Flow Chart. . .	29
Figure 5	Cadillac Selective Malperformance Testing Flow Chart .	30
Figure 6	Quality Assurance Activity	33
	List of Tables	37
Table 1	Summary of Vehicle Makes	39
Table 2	Summary of Test Vehicle Characteristics by Model Year. .	40
Table 3	Summary of Exhaust Emissions Test Results by Model Year (1975 Federal Test Procedure - As-Received).	41
Table 4	Vehicles Meeting California Standards, 1979-1980 Model Years.	41
Table 5	Summary of Exhaust Emissions and Fuel Economy Results Improvements at Successive Stages of Restorative Maintenance.	42
Table 6	Summary of Exhaust Emissions and Fuel Economy Results at Successive Stages of Selective Malperformance.	43
Table 7	Summary of Evaporative Emissions Results by Model Year .	44
Table 8	Summary of Exhaust Emissions Test Results by Model Year Highway Fuel Economy Tests - As-Received	44
Table 9	Summary of Exhaust Emissions Test Results by Model Year Bagged Idle Test - As-Received	45
Table 10	Summary of Exhaust Emissions Test Results by Model Year 50 MPH Cruise - As-Received.	45

Table 11	Summary of Exhaust Emissions Test Results by Model Year Four-Speed Idle Test - As-Received	46
Table 12	Summary of Exhaust Emissions Test Results by Model Year Loaded Two Mode Test - As-Received	46
Table 13	Summary of Emissions Component Inspection Information by Model Year	47
Table 14	Inspection Results by Model Year and Make for Vehicles with Some Malperformance	47
List of Appendices		49
Appendix A	Listing of Vehicle and Test Parameters	51
Appendix B	Listing of Test Vehicle Use & Maintenance Data	57
Appendix C	Listing of Federal Test Procedure Results on Individual Vehicles	63
Appendix D	Listing of Evaporative Emissions Test Procedure Results on Individual Vehicles	99
Appendix E	Listing of Highway Fuel Economy Test Results on Individual Vehicles.	103
Appendix F	Listing of Bagged Idle Emissions on Individual Vehicles	107
Appendix G	Listing of 50 MPH Cruise Test Results on Individual Vehicles	113
Appendix H	Listing of Four-Speed Idle Test Results on Individual Vehicles	121
Appendix I	Listing of Loaded Two Mode Test Results on Individual Vehicles	145
Appendix J	Listing of Driveability Evaluations on Individual Vehicles	161
Appendix K	Listing of Emission Component Inspection Information on Individual Vehicles	169

SECTION 1

INTRODUCTION

The U.S. Environmental Protection Agency (EPA), through authority provided by the Clean Air Act, is responsible for the control and prevention of air pollution. As provided by the Act, one of the charges of the EPA is the design, conduct and promotion of surveys and studies of the sources of air pollution. The Emission Control Technology Division (ECTD) of the EPA develops, implements and administers a national program to characterize, quantify and reduce the air pollution caused by mobile sources. Included in the division's responsibilities is the collection of emissions data from in-use vehicles and the development and evaluation of alternatives for the control of vehicle emissions. These in-use vehicle data are utilized by the EPA in calculating and projecting motor vehicle emissions from light-duty vehicles. The emission factors generated by this process are also used in developing transportation control procedures and contingency programs to cover emergency situations. Outside of the EPA, these data and the emission control alternatives are used by various state and local agencies in their air pollution control programs. In carrying out its responsibilities, the EPA regularly conducts in-use vehicle emission factors programs and emission control alternative studies. In order to support the states in their efforts to implement their air quality programs, the Emission Control Technology Division will use the data generated by this project to assess the effectiveness of new technology vehicle exhaust emissions systems in Los Angeles.

This report describes a program conducted by Automotive Environmental Systems, Inc. (AESi) to gather information on three-way catalyst vehicles in the Los Angeles area. The testing was conducted between January 1980 and August 1980.

Section 2 of this report describes the objectives, design, and conduct of the program. Section 3 presents summary results. Detailed listings of data are presented in the Appendices by vehicle number. Data packets and punched computer cards, with EPA-defined data formats, were submitted to the Project Officer.

SECTION 2

TECHNICAL DISCUSSION

2.1 PROGRAM OBJECTIVES

This report describes a program conducted by Automotive Environmental Systems, Inc. (AESi) to gather information on three-way catalyst vehicles in the Los Angeles area. The testing was conducted between January 1980 and August 1980.

2.2 PROGRAM DESIGN

The emphasis of this project was in gathering exhaust emissions information on 3-way catalyst equipped vehicles, due to their projected rapid increase in the vehicle population. The test fleet was made up of 116 (1979-1980) model year three-way catalyst vehicles. Each vehicle received a Federal Test Procedure (FTP) test, a Highway Fuel Economy test (HFET), a Bagged Idle test, a 50 MPH Cruise test, a Four-Speed Idle test and a Loaded Two-Mode test.

2.3 TEST VEHICLE PROCUREMENT

A list of vehicle makes and engine families certified for sale in California and equipped with 3-way catalytic converter systems and 3-way catalytic converter plus oxidation catalysts was provided by EPA. General guidelines were provided as to the quantities desired from each of these engine families. However, due to the low population of some of these engine families, not all were available for testing.

In an effort to avoid biasing the sample, the number of vehicles procured from members of commercial, civic, fraternal, or religious organizations was limited to fifty percent of the vehicles from any one model year. The use of rental, leased or fleet vehicles was limited to twenty percent of the vehicles tested. Groups of vehicles were not obtained from organizations which are automobile oriented.

2.3.1 Test Vehicle Selection

Test vehicles were selected based on guidelines provided by the EPA Project Officer.

Preceding page blank

Test vehicles were solicited using various methods. The primary method was from vehicle registration lists purchased from a market information service company, from which mailings were prepared. Vehicles were also solicited using news releases in local papers and paid advertisements in newspapers and flyers.

2.3.2 Incentives for Participation

The owner of a suitable test vehicle was provided the following incentives for his participation:

A \$100 U.S. Savings Bond. Bonds were mailed to participants within one month following the test on their vehicle.

The use of a late-model, fully insured loaner automobile during the time their vehicle was undergoing testing.

The owner's automobile was returned with a full tank of fuel.

2.3.3 Test Vehicle Handling

In most cases, the vehicle was scheduled to be delivered to AESi in Westminster by appointment. In some cases, vehicles were picked up and/or delivered at a participant's home or place of business. An inspection was performed to ensure proper vehicle match and to establish the physical condition of the vehicle. A loan vehicle exchange agreement, the savings bond application and the Vehicle Owner Use Questionnaire were also completed at this time. Once the vehicle was accepted into the program it then followed the sequence illustrated in Figure 2.

2.4 FACILITIES AND EQUIPMENT

2.4.1 Test Location

All tests were performed at AESi's test facility at 7300 Bolsa Avenue in Westminster, California. The facility is located approximately 25 miles south of downtown Los Angeles at an elevation of 45 feet above sea level.

The test facility environment, including testing and vehicle soak areas, was maintained within the requirements of the contract. A permanent record was maintained for the ambient temperature in the soak and test areas for all phases of testing. The vehicle soak area is inside the same building as is the test area and is free from precipitation.

2.4.2 Constant Volume Sampler

A positive displacement pump type constant volume sampler (CVS) built by AESi was used in this program. This CVS meets or exceeds all specifications defined in the Code of Federal Regulations Title 40, Part 86, Subparts

A and B (40 CFR Part 86). The system contains six sample bags switched by computer in sample/background pairs for all dilute exhaust sample testing.

All plumbing in the sampling, analytical and calibration systems is either stainless steel or teflon. This includes all sample, calibration and zero gas lines and the valves and regulators for NO gases. Leak-tight stainless steel convoluted tubing is used between the CVS and the vehicle tail pipe for exhaust gas sampling. An appropriate leak-tight boot was used to connect the tail pipe to the convoluted tubing. A stainless steel heat exchanger with a temperature controlled cold water inlet was used to provide essentially a constant exhaust gas temperature throughout the entire test.

The sample and dilution air bags are made of Dupont Tedlar material and are of a volume compatible with the CVS unit (i.e., no pressure build up in the bag when filling with sample or background gas).

2.4.3 Emission Analysis Console

An AESI exhaust gas analytical system meeting or exceeding the specifications of 40 CFR Part 86, was used for dilute gas measurements. Similar laboratory type instrumentation, with additional ranges, was used for analysis of raw NO gas. In addition, a Chrysler Model III garage-type analyzer was used for measurement of raw HC and CO. The console contains the following instrument types and ranges:

<u>Analyzer</u>	<u>Ranges</u>
Bendix Model 8501-5C NDIR (Lo CO - Dilute Exhaust)	0-100, 0-500 ppm (11 1/4" Cell Length)
Beckman 315B NDIR (Hi CO - Dilute Exhaust)	0-.3% (2 1/2" Cell Length) 0-3%, 0-5% (1.4" Cell Length)
Beckman 315B NDIR (CO ₂ - Dilute Exhaust)	0-2.5%, 0-4% (1/4" Cell Length)
Beckman 400 FID (Lo HC - Dilute Exhaust)	0-50, 0-100, 0-300 ppm Carbon
Beckman 400 FID (Hi HC - Dilute Exhaust)	0-1,000, 0-3,000 ppm Carbon
Teco 10AR Chemiluminescent (NOx - Dilute Exhaust)	0-100, 0-250 0-1,000, 0-2,500 ppm
Teco 10AR Chemiluminescent (NO - Raw Exhaust)	0-250, 0-1,000, 0-2,500 0-4,000 ppm

Chrysler Model III Garage
(HC - Raw Exhaust)

0-300, 0-2,000 ppm

Hexane Equivalent

(CO - Raw Exhaust)

0-.5%, 0-10%

2.4.3.1 Laboratory Standard Calibration & Working Gases

Laboratory standard calibration gases, previously approved by EPA, were used for defining instrument calibration curves and assigning concentration values for the working gases. Each cylinder of standard gas and each working gas cylinder was equipped with its own pressure regulator as specified by the contract. All gases were plumbed to a quick-disconnect panel for ease in selecting the gas desired during calibration and testing.

Calibration gases for each range of the HC and NOx analyzers were chosen such that three points were used across the curve (zero and approximately 45% and 90% of full scale concentration). CO and CO₂ calibration points were at zero and approximately 15, 30, 45, 60, 75 and 90 percent of full scale. All span gases were 80-100 percent of full scale.

The diluents used in the calibration and working gases are:

HC, ppmC

Propane in HC free air

NOx, ppm

In zero grade nitrogen

CO, mole %

In zero grade nitrogen

CO₂, mole %

In zero grade nitrogen

2.4.4 Sealed Housing For Evaporative Determinations (SHED)

Evaporative emissions tests were performed using an AESi SHED and its associated operator console. The SHED meets all requirements of 40 CFR Part 86. The console includes a Beckman 400 FID analyzer with ranges of 0-100, 0-300, 0-1000 and 0-3000 ppmC; a Linear Instruments chart recorder for analyzer output; a Leeds and Northrup SPEEDOMAX multipoint temperature recorder; and a variable voltage source and heating element (blanket) for applying heat to the vehicle gas tank for the diurnal heat build. A cooling package is installed to ensure operation of the SHED within the temperature range of 68°F to 86°F. The cooling package consists of a 1680 CFM fan and a heat exchanger utilizing cold water (68°F) to maintain the ambient temperature within the SHED.

2.4.5 Chassis Dynamometer

The chassis dynamometer was equipped to simulate vehicle inertia and road load horsepower as required in 40 CFR Part 86.

The dynamometer used is a Clayton ECE-50 with 17 1/4 inch roll spacing and 8 5/8 inch diameter rolls. Direct drive variable inertia loading weights were employed, with 250 pound increments from 1,750 through 3,000 pounds and 500 pound increments from 3,000 through 5,500.

A speed meter which indicates mi/hr was used to monitor the speed of the dynamometer roll. The rear dynamometer roll is equipped with a tachometer generator which provides the speed signal during testing. The meter response was linear with speed and the accuracy was within ± 2.0 km/hr (± 1.2 mph) over the range of 0-95 km/hr (0-59 mph). The dynamometer is equipped to measure actual distance traveled for each segment of the FTP testing sequence. However, the theoretical distance for each segment was used in the exhaust emissions calculations.

The power absorption unit was monitored by a power meter accurate and readable to ± 0.25 hp (0.187 kw) over the range of intended use.

2.4.6 Data Acquisition System

Data were obtained from the analyzers, CVS and dynamometer via an AESi Data Acquisition Control Computer (DACC). A Data General NOVA computer was used for generating driver traces for the various driving schedules, for sample bag management and for calculation and presentation of the emission test results. The data were printed by a Data General Dasher printer immediately following sample analysis.

The output from the analyzers was also wired to four Hewlett-Packard Model 7130A two-pen recorders. One recorder was used for dilute HC and NOx, one for dilute CO and CO₂, one for undiluted HC and CO and one for undiluted NO.

2.4.7 Driver's Aid

A two-pen Hewlett-Packard Model 7130A Driver's Aid (speed vs time recorder) was employed to permanently record the driver's performance during the test. The driving trace was generated by the NOVA computer on this recorder in agreement with the specifications of 40 CFR Part 86.

2.4.8 Miscellaneous Equipment

Miscellaneous equipment used in conjunction with the major items of equipment included the following:

Two Teco Model 100 NOx Generators. The generator in the raw gas analysis bench was not used since only NO is reported.

One Rustrak Chart Recording Psychrometer, Model 2133B with continuous recording of wet/dry bulb temperatures.

One Rustrak Chart Recorder, Model AD 101-462-2A for continuous recording of CVS temperature.

One Weathermeasure M701 continuous recording temperature recorder for soak area temperature.

One Princo Mercurial Barometer.

One Meriam 50 MC2-4SF Laminar Flow Element for CVS calibration.

One Sartorius Model 2257 Balance used for weighing the propane cylinders for propane recovery tests.

One Strobotach for dynamometer speed calibration.

Horiba GSM and MEXA 300A garage analyzers were used for vehicle inspection by the mechanic.

2.5 EQUIPMENT QUALIFICATION, CALIBRATION AND CROSSCHECK

This section describes the qualification, calibration, and crosscheck procedures utilized by AESI and verified by EPA technical personnel to ensure that valid test data were generated throughout the test program. Initial qualification included complete demonstration of individual instrument calibration, zero air and nitrogen purity, CVS calibration, dynamometer calibration, and inspection of all daily, weekly and monthly logs.

2.5.1 Constant Volume Sampler

The CVS was calibrated with a laminar flow element (Meriam Model 50-MC2-6SF) using the basic procedures specified in the Federal Register. CVS air flow, measured using the laminar flow element on the inlet side of the mass pump (CVS blower) and was controlled by throttling. Air flow rates were measured at five incremental changes in pump differential pressure on each side of the normal operating point. Flow rates at a total of at least ten points were measured. The nominal air flow of the CVS is 345 cfm. Auxiliary devices employed in the calibration included a mercury barometer to measure absolute ambient pressure, a close tolerance mercury thermometer to measure pump inlet air temperature, a U-tube water manometer to measure pressure drop across the pump and pump inlet pressure and a close tolerance inclined water manometer to measure pressure drop across the laminar flow element. Once this calibration was completed, data from these devices were computer processed and the mid-range blower operating point was determined. Propane recovery tests using instrument grade propane were made after the calibration to confirm its accuracy. A copy of the calibration data was provided to the EPA Project Officer as a part of the qualification data package.

Calibration of the laminar flow element (LFE) is traceable to the National Bureau of Standards, and a certified copy of the LFE calibration curve was furnished to the Project Officer at the time of Laboratory Qualification.

Daily propane recovery tests were made to confirm continued calibration of the CVS system. The measured propane mass recovered by the CVS had to be within ± 2.0 percent of the injected mass of up to 20 grams of

instrument grade propane as determined gravimetrically. The recovered amount of propane was measured on the 0-300 ppmC FID range. A Rustrak chart recorder was used to continuously record CVS temperature during these tests.

2.5.2 Emission Analysis Console

2.5.2.1 Dilute Exhaust Analysis Console

Complete calibrations of the mass emission analysis console instruments were performed initially and checked each week thereafter until testing was completed. Calibration curves for the mass emission analysis console CO, CO₂, HC and NOx instruments were established using the gases previously identified. The CO and CO₂ instruments were calibrated at seven somewhat evenly spaced points (zero and six upscale points) across each operating range. Calibration of the HC and NOx instruments was performed at three somewhat evenly spaced points (zero and two upscale points) across each operating range. Calibration of these instruments was established and maintained within one percent of full scale for each range, respectively, or five percent of the measured value, whichever was smaller. A computer program provided by the EPA was used in the generation of the calibration curves.

In connection with each test, the CVS sample bags were purged with nitrogen, evacuated and leak-checked. These operations were performed in a bag evacuate, N₂ purge, evacuate and leak-check sequence by means of a manual push-button selection of solenoids located within the CVS. A leak in the system is indicated by a non-zero flow in the flow meters on the operator's console.

Other activities included setting zero and span points immediately prior to exhaust sample analysis and zero and span point verifications immediately following exhaust sample analysis. Strip chart recorders were operated continuously throughout the zero and span set-point calibration, sample analysis and zero and span verification sequence. Verification tolerances were maintained within ± 1 deflection from the set-point for the range in use. Converter efficiency of the NOx converter was maintained above 90 percent. The noise level of analyzer outputs as indicated on the strip chart was maintained within ± 0.5 percent of full scale for the range used during both calibration and analysis.

2.5.2.2 Raw Exhaust Analysis Console

The NOx instrument used in the undiluted (raw) emission analysis console is a laboratory instrument calibrated using the same gases, calibration points, tolerances and verification frequency described above in connection with the NOx instrument used in the mass emission analysis console. Efficiency of the tail pipe raw exhaust NOx laboratory instrument thermal converter was not checked daily because NO (Nitric Oxide) was measured and reported, not NOx (Oxides of Nitrogen).

The tail pipe HC/CO measurement instrument was operated in accordance with the manufacturer's recommendations except that this instrument was zeroed with nitrogen and the HC and CO span-points calibrated with

appropriate gases immediately prior to each test. Each analyzer was checked for zero and span point drift immediately following each test.

2.5.2.3 Daily Qualification Checks

Daily qualification checks included:

Leak-check of each instrument as well as the system.

Recording of zero, gain and tune, as applicable, for each instrument.

Hang-up and leak-checks for background and sample bags and sample line.

NOx analyzer vacuum and converter efficiency checks.

Propane recovery tests to ensure proper FID operation as well as verification of the CVS calibration.

Recording of FID fuel and air pressure.

Recording of cylinder number, concentration, deflection, cylinder pressure for each working gas.

In addition to the above daily checks, weekly calibration curve checks were made for each range of each instrument.

Appropriate calibrations, leak-checks, etc., were also made whenever maintenance was performed which could change instrument or system operation.

2.5.3 Sealed Housing for Evaporative Determinations (SHED)

The volume of the SHED used was determined by physical measurement. Calibration of thermocouples used in the SHED was verified by an ASTM thermometer as was the temperature recording instrument. Calibration curves were generated for each range of the Beckman 400 FID used in the analytical console. These curves were verified weekly.

For initial calibration, the FID was zeroed on zero grade prepurified air and calibrated at two upscale points (i.e. 45% and 90% of full scale) on each of the ranges used. The same hydrocarbon gas standards previously described were employed for this calibration. Curve fit tolerances and verification frequency were the same as those applied to the dilute emission analysis console instruments.

The SHED was subjected to a background hydrocarbon check, a calibration check and a retention check prior to testing the first vehicle.

The background emissions check was performed by sealing the enclosure and allowing it to remain sealed for a period of four hours. Initial and final hydrocarbon readings were taken. The background emission rate was

acceptable when it was less than the maximum increase of 0.4 grams for the four hours, as defined in 40 CFR Part 86.

The SHED was calibrated by first purging with fresh air and then sealing the enclosure. Approximately 4 grams of instrument grade propane was injected into the enclosure after the enclosure was sealed. The mixing fans were operating during this injection. After five minutes of mixing, the stabilized hydrocarbon level of the enclosure was measured and the mass calculated. The quantity of the calculated recovery was within $\pm 2\%$ of the injected amount.

The propane retention (leak) check was performed following the calibration. In this check the SHED was allowed to remain sealed for a minimum of four hours with the mixing blowers operating. At the end of this period the hydrocarbon level of the enclosure was measured and the mass calculated. For this check, the hydrocarbon level was within $\pm 4\%$ of the initial reading as calculated. The SHED calibration and retention tests were performed monthly thereafter.

2.5.4 ECE-50 Chassis Dynamometer

Dynamometer speed was verified initially and bi-weekly with a Strobach. Road load force was determined using calibrated weights. Coastdowns were performed initially and bi-weekly thereafter to verify the road load force versus inertia weight relationships as given in 40 CFR Part 86.

2.5.5 Data Acquisition System

The data acquisition system was verified by performing manual checks of equipment performance and hand calculations from strip chart data and comparing these with the data provided by the DACC. This activity is verified by a Quality Assurance inspection for each test. A reasonableness check is performed for each critical data element. Any suspect data was verified by strip chart or calculation. Any data found to be in error was independently recalculated wherever possible or the test is rejected.

2.5.6 Miscellaneous Equipment

All miscellaneous equipment was calibrated or verified according to manufacturer's recommended practices. The CVS laminar flow element and barometers were calibrated by Meriam Instruments Company.

2.6 TEST PROCEDURES

2.6.1 Vehicle Preparation

Each vehicle received a preliminary safety inspection as part of the procurement activity. This was done to ensure that the vehicle was safe to operate on the street. Upon acceptance for testing, the vehicle's fuel tank was drained and refueled with appropriate test fuel to 40% of tank capacity. Vehicles receiving a SHED test were further prepared by locating a point on the side of the fuel tank that approximated the midpoint of the

40% fuel volume. A Type J thermocouple was then soldered to the tank at that point. To ensure that test fuel had purged the fuel system, the vehicle was driven for ten minutes on city streets or on the dynamometer for the first 505 seconds of the FTP. After the preconditioning run, the vehicle was driven or pushed into the soak area for the required 12 to 24 hour soak at temperatures between 68°F and 86°F. Drive wheel tire pressure was set to 45 psi prior to dynamometer testing to prevent tire damage.

Figure 2 presents a flow chart of testing activities.

2.6.1.1 Driveability Evaluation

An evaluation of the driveability of each vehicle was performed prior to and during each FTP. The evaluation is essentially the same as that performed on previous EPA light duty vehicle projects. Appendix J lists the items evaluated and the results for individual vehicles.

2.6.2 Equipment Preparation

Prior to the first test of the day and following any shut-down, equipment which had been idle or in a stand-by condition was activated to begin warm-up. This included the CVS water heater, mass pump and each of the analytical instruments. Following the warm-up of the respective instruments, efficiency of the NOx instrument thermal converter was checked and the propane recovery test involving the CVS sample system and the FID hydrocarbon instrument was conducted. Subsequent to these checks, analyzer outputs, as indicated by the strip chart recorders and the DACC computer and printer, were checked for correlation by calibrating at zero and five volts. Prior to the first exhaust emissions test of the day or following any extended shut-down, the dynamometer was warmed-up. The prescribed 15 minutes of 30 mile per hour operation of the dynamometer was the warm-up procedure followed. Following warm-up, the speed calibration of the dynamometer, driver's aid recorder and associated indicating devices were also checked and calibrated as necessary.

Prior to each test, all charts were properly stamped to show, among other things, the vehicle number, run number, date and persons involved in the test.

2.6.3 Federal Exhaust Emission Test Procedure

The Federal Test Procedure as described in 40 CFR Part 86 was performed on all vehicles in the as-received condition. The evaporative emissions portion of the procedure was performed on 25 vehicles in this program. The exhaust emission portion of the Federal Test Procedure is comprised of cold transient, cold stabilized and hot transient phases. The cold transient portion is 505 seconds long, covering a distance of 3.59 miles with an average speed of 25.6 mph. The cold stabilized portion is 869 seconds in length, 3.91 miles in distance and a 16.2 mph average speed. The hot transient portion is identical to the cold transient portion except that it is preceded by a 10 minute soak. The evaporative emissions testing consisted of a diurnal heat build as described in 40 CFR Part 86 paragraph

86.133-78. This was followed by FTP testing and a Hot Soak test per 40 CFR paragraph 86.138-78.

The cold soak period used for the test vehicles was 12 to 24 hours. The starting procedures and shift points used for the test vehicles were as recommended by each manufacturer.

2.6.4 Bagged Idle

This test immediately follows the FTP. The test begins with a 6 minute "engine-off" soak period with the cooling fan off and the hood closed. At the end of the soak period the engine is restarted and operated for 3 minutes at idle in drive (manual transmission vehicles in neutral with the clutch engaged). During the 3 minutes a dilute sample is collected and then analyzed. The sample period begins when the starter is engaged and includes crank time. However, if an evaporative emissions test was performed on the test vehicle, this test is preceded by a preconditioning cycle consisting of the first 505 seconds of the FTP driving cycle.

2.6.5 50 MPH Cruise

This test takes advantage of the 3 minute preconditioning run before the HFET. Tailpipe emissions are recorded and measured continuously throughout the period although the official sampling period ends 30 seconds after the speed and load have stabilized at 50 MPH.

2.6.6 Highway Fuel Economy Test

Starting with each vehicle in a warmed-up condition (at least 7.5 miles of cyclic operation within the last thirty-five minutes) each vehicle was operated on the chassis dynamometer at 50 miles per hour for three minutes. Within one minute after the end of the 50 mile per hour cruise period, the vehicle commenced operation over the 10.242 mile, 765 second driving schedule. A CVS sample bag was used to gather the dilute exhaust for emissions analysis and fuel economy calculations. HC, CO, CO₂ and NOx emissions were measured and reported in grams per mile. Fuel economy was calculated by the carbon balance method and reported in miles per gallon.

2.6.7 Four-Speed Idle Test

This test followed the HFET and required additional analytical instruments, aside from those required for the basic FTP test, to measure undiluted exhaust emissions. The instruments used for measurement of undiluted HC, CO and NO emissions are specified in Section 2.4.3.

This short test consisted of volumetric sampling of undiluted exhaust emissions during four steady state operating conditions, with the hood open and the cooling fan on. The first operating mode was basic idle with the transmission in neutral. The second operating mode was at 2500 engine RPM, also in neutral. The third mode was again normal curb idle in neutral and the fourth mode (automatic transmission vehicles only) was curb idle in Drive with brakes applied.

Four-Speed Idle tests were preceded by a six minute idle soak period with transmission in neutral, the hood open and the auxiliary cooling fan on. At the end of the soak period the vehicle was operated at idle in neutral, then at 2500 RPM, again at idle in neutral and then idle in Drive for automatic transmission vehicles. Equilibrium of engine speed and the CO, HC and NO analyzer output meters was maintained for 30 seconds before the readings were recorded. CO, HC and NO were measured and reported in % CO, ppm Hexane and ppm NO respectively. Engine RPM from the last idle mode was written on the vehicle data packet.

2.6.8 Loaded Two Mode Test

The six minute soak period and the undiluted exhaust analysis instruments described under the Four-Speed Idle test were also used for this test. This test followed the HFET and Four-Speed Idle Test so the engine, dynamometer and analyzers were at normal operating temperature. Inertia weight was set at 1750 pounds. The dynamometer load was set to 9.0 actual horsepower at 30 miles per hour regardless of vehicle weight. Using Drive for automatic and third gear for manual transmissions, the vehicle was operated at 30 miles per hour roll speed. The concentrations of HC, CO and NO emissions were recorded continuously during this time and analyzed after a maximum of 30 seconds or when stabilized. Following this, the vehicle was allowed to idle until emissions once again stabilized or for a maximum of 30 seconds before the concentrations were again analyzed.

2.6.9 After-Test Procedures

After the completion of testing and acceptance of the data by Quality Assurance, each vehicle was taken to the inspection and maintenance area. Here the mechanic measured and recorded engine parameters which included initial timing, idle speed, undiluted idle CO and undiluted idle HC emissions. When possible the procedures outlined in the owner's manual and on the vehicle's emission sticker were followed in performing these inspections. If the owner's manual and emissions sticker were missing, the shop manual, or other available publication was used to determine vehicle specifications. In some cases, the vehicle manufacturer was called upon to aid in determining specifications.

2.6.9.1 Propane Enrichment

Each dynamometer test series was followed by a Propane Enrichment test. A copy of the test procedure and a copy of the data sheet for this test are attached to this report (Figure 3).

2.6.9.2 Maladjustment and Disablement Inspection

All vehicles were given an extensive underhood inspection to determine the condition and proper installation of each emission control component. Procedures used were those detailed in manufacturers shop manuals. These procedures were supplemented by other manufacturer supplied information where necessary. The systems inspected and the inspection re-

sults are listed in Appendix K. The results of the many subsystem inspections were submitted to EPA but are not listed in this report.

2.6.9.3 Fuel Tank

Prior to returning the vehicle to the owner, tire pressure was set to manufacturer's specifications, and the fuel tank was filled to full capacity with fuel currently being marketed in the test area. This fuel was suitable for use in the particular vehicle.

2.6.10 Restorative Maintenance

Nineteen vehicles received the 5-step Restorative Maintenance test sequence. To assess improvements, the vehicles were retested following each repair step using the as-received dynamometer test sequence. The complete 5-step Restorative Maintenance sequence is presented in Figure 4.

2.6.11 Selective Malperformance

Four Cadillacs were subjected to Selective Malperformance test sequence. These tests were conducted to determine the effects of component disablement on the exhaust emissions control system. The Selective Malperformance test sequence is presented in Figure 5.

2.6.12 Daily Test Schedule

Test shifts were generally limited to the first and second shifts of the day. Vehicles scheduled for test the next day were usually preconditioned on the second shift. Daily calibration checks and system preparation (as described in Section 2.5) were performed prior to the first test of the day and tests were scheduled with this in mind.

2.7 DATA HANDLING

2.7.1 Data Collection

Various forms were developed for the recording of significant test information. These data forms are supported by various strip charts and computer printouts from the AESi DACC. The forms were designed to enable direct keypunching in the formats defined by EPA.

The information included a thorough description of each test vehicle, its test results and inspection parameters, its driveability characteristics and its use characteristics.

2.7.2 Data Processing

Diluted exhaust emissions test results include ambient temperature, barometric pressure, humidity, and mass equivalent (grams per mile) of total HC, CO, CO₂, and of NO_x both as-measured and corrected for relative humidity. Undiluted exhaust emissions were recorded as ppm Hexane for hydrocarbons, percent CO for carbon monoxide and ppm NO for nitric oxides. Fuel consumption, in miles per gallon, was calculated from bag data accord-

ing to the carbon balance technique and reported for each vehicle. The carbon balance technique used was provided by the Project Officer.

All of the exhaust emissions data were calculated at the time of test by the AESi DACC. This computer was checked at least monthly using independent calculations from the analyzer strip charts to ensure its validity.

These results were reported on a weekly and a cumulative monthly basis using the keypunched cards prepared for submittal to EPA.

2.7.3 Quality Control

The quality assurance program applied to this project monitors every aspect of each emissions test. This includes operator and driver performance, the sampling system, ambient test conditions, analyzer performance, gases, fuel, dynamometer settings and all data processing. In addition, all other data submitted as part of this project received the inspection of the Quality Assurance section. Any discrepancies noted during the review process were resolved in an appropriate manner.

Figure 6 presents a flow chart of the Quality Assurance activities.

2.7.4 Calculation of Results

2.7.4.1 Federal Test Procedure

Test results were calculated based on the procedure presented in 40 CFR Part 86. Theoretical distance was used in the grams per mile calculation for each test phase. Fuel consumption was calculated using the carbon balance method and was reported in miles per gallon.

2.7.4.2 Bagged Idle

The mass emissions were calculated according to 40 CFR Part 86 and are reported in grams.

2.7.4.3 50 MPH Cruise

Emissions from the 50 MPH Cruise tests, performed with the vehicle on the dynamometer, consisted of a five second analyze time after stabilization of HC, CO and NO had occurred. The DACC collects ten readings per second, averages them and prints the average value for each pollutant.

2.7.4.4 Highway Fuel Economy Test

HC, CO, CO₂ and NO_x were measured and reported in grams per mile. The mass emissions were calculated according to 40 CFR Part 600.

Fuel economy was calculated by the carbon balance method and reported in miles per gallon.

2.7.4.5 Four-Speed Idle Emissions Test

Emissions from the Four-Speed Idle tests, performed with the vehicle on the dynamometer, consisted of a five second analyze time after stabilization of HC, CO and NO had occurred. The DACC collects ten readings per second, averages them and prints the average value for each pollutant. This procedure was followed for each test mode.

2.7.4.6 Loaded Two Mode Emissions Test

All Loaded Two Mode emissions tests were performed with the vehicle on the dynamometer using the same computer procedure described for the Four-Speed Idle test.

SECTION 3

DISCUSSION OF TEST RESULTS

3.1 TEST FLEET DESCRIPTION

The test fleet was made up of a total of 116 vehicles. The final vehicle matrix by make and model year is shown in Table 1. The characteristics of these vehicles by inertia weight, engine displacement and number of engine cylinders is shown in Table 2.

The vehicle numbering system groups all model year vehicles by the leading digit of the vehicle (e.g. 0120 would be a 1980 vehicle, 9007 would be a 1979 vehicle).

Descriptive information regarding individual vehicles is included in Appendixes A and B.

3.2 FEDERAL TEST PROCEDURE EMISSIONS AND FUEL ECONOMY

The FTP emissions and fuel economy data are summarized by model year in Table 3. A listing of FTP emissions for each vehicle is found in Appendix C. A summary of exhaust emissions and fuel economy results and improvements at successive stages of maintenance is presented in Table 5.

Table 6 presents a summary and comparison of exhaust emissions and fuel economy results as a result of several malperformance actions. Each is compared to the baseline test. Degradation is shown as a negative percent improvement.

3.3 VEHICLES MEETING EXHAUST EMISSION STANDARDS

Table 4 presents the summary of 1979 and 1980 vehicles passing one or more of the California emissions standards for that model year.

3.4 EVAPORATIVE EMISSIONS

A summary of the evaporative emissions (by model year) is presented in Table 7. The listing of results by individual vehicles is given in Appendix D.

3.5 BAGGED IDLE

A summary of Bagged Idle test emissions results is presented in Table 9. A listing of Bagged Idle emissions data for individual vehicles is presented in Appendix F.

3.6 50 MPH CRUISE

A summary of 50 MPH cruise emissions data (by model year) is presented in Table 10. A listing of 50 MPH Cruise emissions data for individual vehicles is presented in Appendix G.

3.7 HIGHWAY FUEL ECONOMY TEST EMISSIONS

The Highway Fuel Economy test data are summarized in Table 8 and listed for individual vehicles in Appendix E.

3.8 FOUR-SPEED IDLE TEST EMISSIONS

The Four-Speed Idle emissions data are summarized in Table 11 and listed for individual vehicles in Appendix H.

3.9 LOADED TWO MODE TEST EMISSIONS

The Loaded Two Mode test data are listed for individual vehicles in Appendix I. A summary of Loaded Two Mode emissions data (by model year) is presented in Table 12.

3.10 MALADJUSTMENT AND DISABLEMENT INSPECTION RESULTS

A summary of vehicle emission component inspection results is given in Table 13. A summary of vehicles with some malperformance is presented by model year and make in Table 14. These summaries are extracted from the data on individual vehicles presented in Appendix K.

LIST OF FIGURES

- Figure 1 Vehicle Procurement Flow Chart
- Figure 2 Testing Flow Chart
- Figure 3 Propane Recovery Test Procedure and Sample Test Data Sheet
- Figure 4 5-Step Restorative Maintenance Testing Flow Chart
- Figure 5 Cadillac Selective Malperformance Testing Flow Chart
- Figure 6 Quality Assurance Activity Flow Chart

Vehicle Procurement Flow Chart

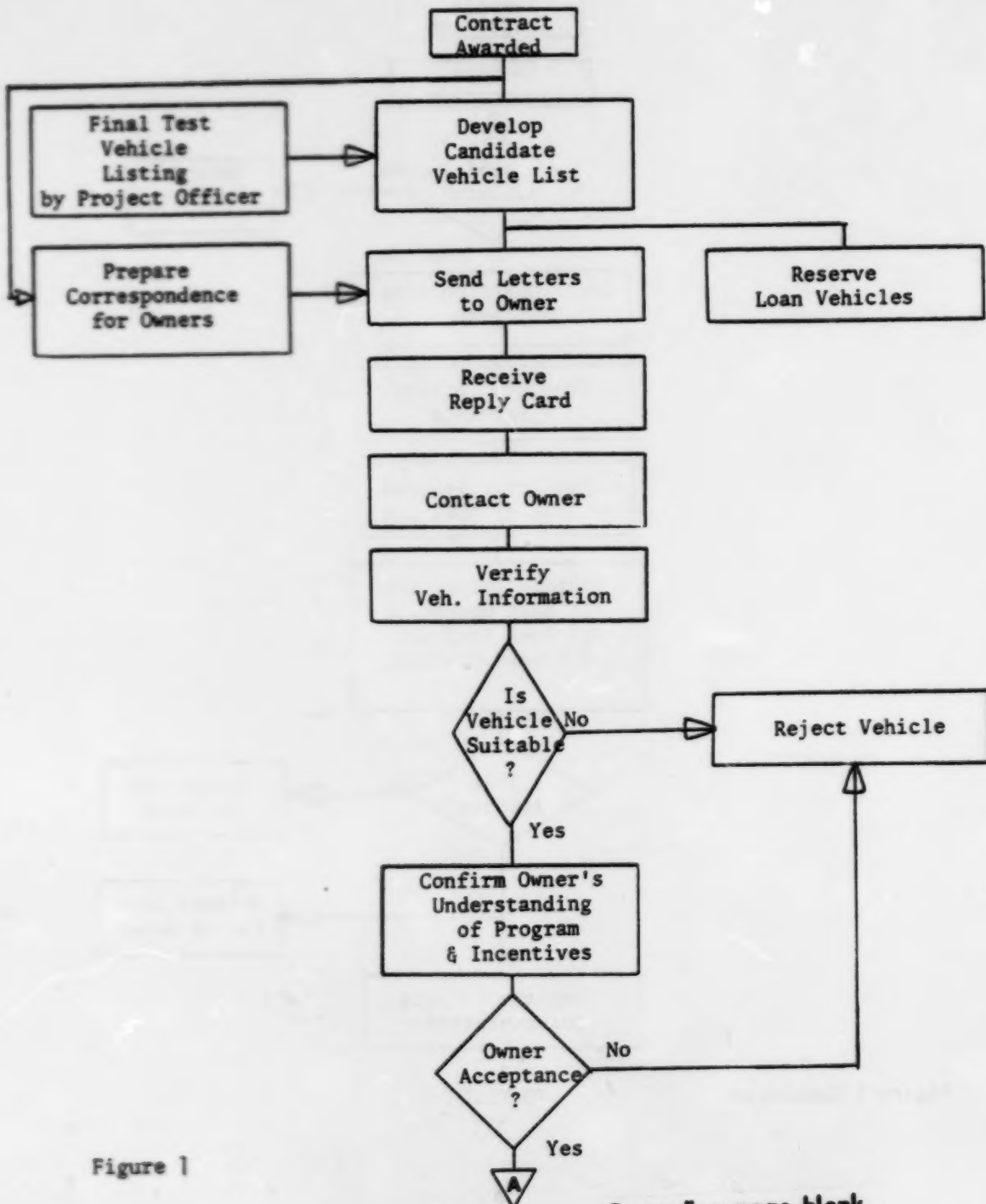


Figure 1

Vehicle Procurement
Flow Chart

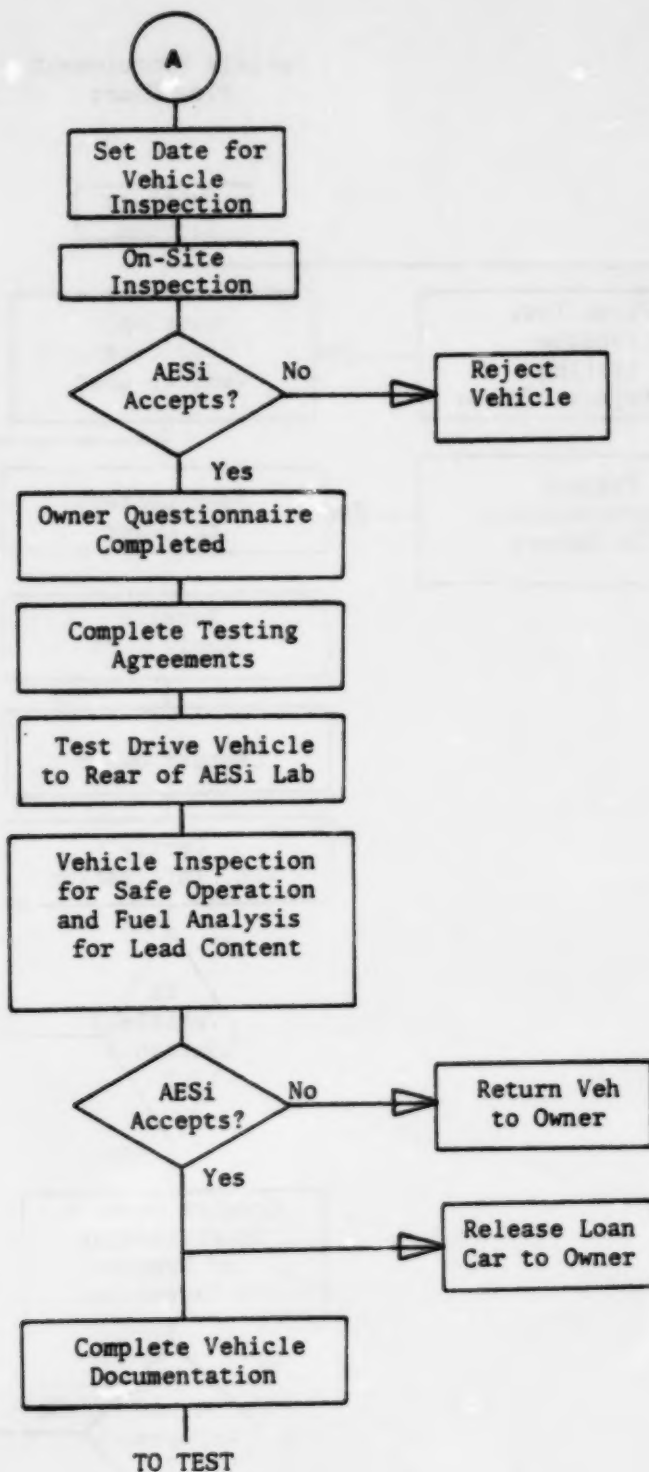


Figure 1 Continued

Testing Flow Chart
(Vehicles Without Restorative Maintenance
or Selective Malperformance)

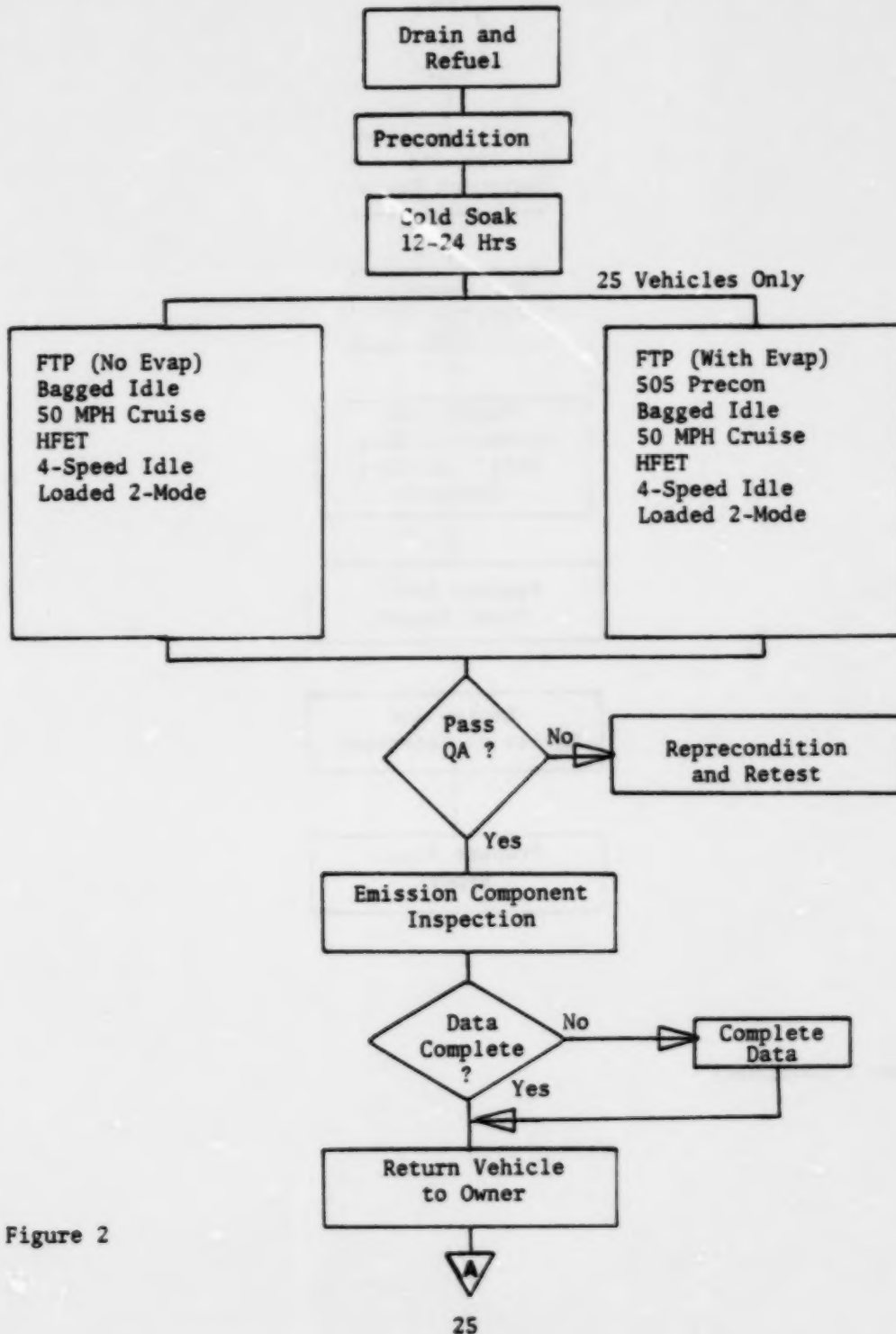


Figure 2

Testing Flow Chart (Vehicles Without
Restorative Maintenance or Selective Malperformance)

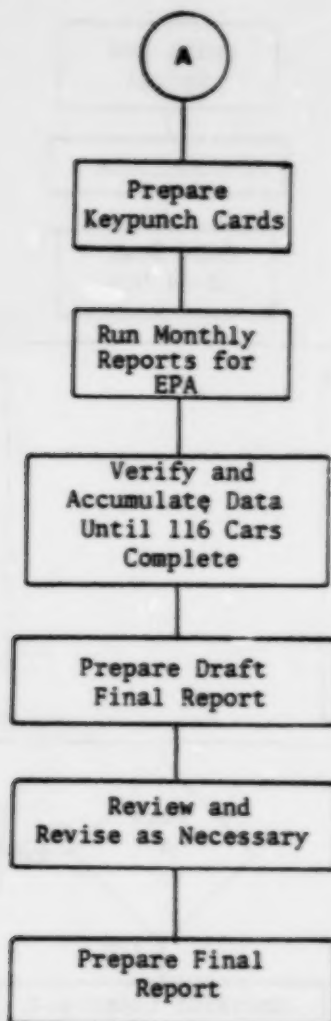


Figure 2 Continued

Figure 3 Propane Injection Diagnostic Procedure for Three-Way Catalyst Vehicles

The purpose of this procedure is to identify a failed feedback control system. If a running engine with a functioning feedback control system is suddenly given a volume of propane gas, the engine should give a characteristic response: the emissions, and possibly engine speed, should first increase, then return to normal as the carburetor compensates for the richer mixture.

For this experimental procedure, four propane gas flow rates were used for each vehicle: 1, 2, 3, and 4 cubic feet per hour (cfh). Each flow rate was pre-set through a flowmeter, and then quickly presented to the carburetor through an inlet to the air cleaner.

The vehicle was at curb idle in Neutral or Park gear, fully warmed-up with all accessories off. Before each measurement the engine speed was increased to approximately 2500 rpm in Neutral gear for 30 seconds. The propane shall be admitted within 30 seconds after the engine returned to idle. Readings were taken within 60 seconds after propane was induced into the carburetor. The propane flow was then shut off and additional readings taken and recorded.

One data sheet was filled out for each flow rate. In the event that a flow rate caused the engine to stall, notation of that was made at step 3 of the data sheet and the procedure stopped for that vehicle.

Figure 3 (Continued)

Vehicle # _____ Make/Model _____

Date _____ CID _____

1. Preset Flow Rate. Record Flow Rate _____ cfm
Operate engine at 2500 RPM for 30 seconds, then return to idle.
2. Record: Idle RPM _____ (Neutral/Park gear, no propane flowing)
ICO _____
3. Induce propane quickly, observe vehicle behavior over a period not longer than 60 seconds.

Check one:

- ☐ RPM rises smoothly
- ☐ RPM decreases smoothly
- ☐ RPM rises smoothly to _____ (record RPM), then falls.
- ☐ RPM falls smoothly to _____ (record RPM), then rises.
- ☐ Engine runs rough, then stabilizes
- ☐ Engine dies (stop procedure here)

4. When engine stabilizes (maximum 60 seconds) record: RPM _____
ICO _____

5. Withdraw propane quickly, observe vehicle behavior

Check one:

- ☐ RPM rises smoothly
- ☐ RPM decreases smoothly
- ☐ RPM rises smoothly to _____ (record RPM), then falls.
- ☐ RPM falls smoothly to _____ (record RPM), then rises.
- ☐ Engine runs rough, then stabilizes
- ☐ Engine dies

6. When engine stabilizes record: RPM _____
ICO _____

Propane Injection Diagnostic Procedure for Advanced Technology Vehicles

Figure 4 5-Step Restorative Maintenance Sequence
3-Way Catalyst Vehicles
(25 Vehicles Only)

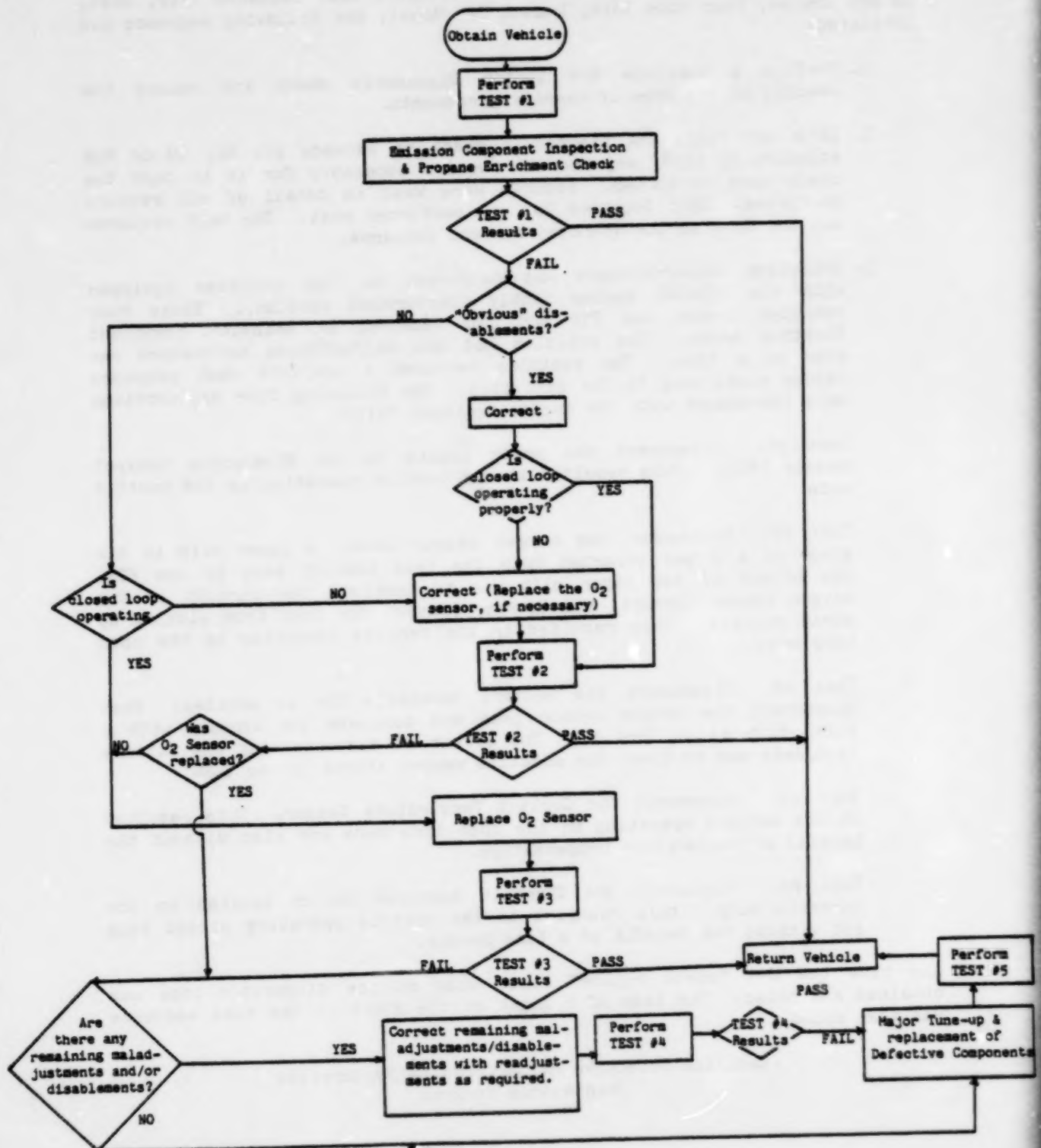


Figure 5

After each car has completed its as-received test sequence (FTP, HFET, 50 MPH Cruise, Four Mode Idle, Loaded Two Mode), the following sequence was initiated:

1. Perform a complete C-4 System Diagnostic check and record the results in the form of narrative comments.
2. If a car fails the Diagnostic check or exceeds its HC, CO or NOx standard by 150%, any and all repairs necessary for it to pass the check were performed. Records were kept in detail of all repairs performed. Test Sequence Two was performed next. The test sequence was the same as the as-received test sequence.
3. Selective Malperformance was performed on four vehicles equipped with the 06R4RCZ engine family (carbureted version). These four vehicles passed the FTP and had received an emission component function check. The vehicles had the malfunctions introduced one item at a time. The vehicles received a complete test sequence before continuing to the next step. The following five malfunctions were introduced with the engine ignition "off".

Test #6. Disconnect the power inputs to the Electronic Control Module (ECM). This resulted in the vehicle operating in the inhibit mode.

Test #7. Disconnect the oxygen sensor lead. A paper clip in the shape of a U was inserted into the lead leading back to the ECM. The effect of the paper clip was to complete the circuit in the oxygen sensor circuit, and thereby prevent the lead from picking up stray signals. This resulted in the vehicle operating in the open loop mode.

Test #8. Disconnect the battery terminals for 10 minutes. Then disconnect the oxygen sensor lead and complete the circuit with a paper clip as in Test #7. The effect of disconnecting the battery terminals was to clear the adaptive memory stored in the ECM.

Test #9. Disconnect the Coolant Temperature Sensor. This resulted in the vehicle operating in the open loop mode and also without the benefit of temperature compensation.

Test #10. Disconnect the Throttle Position Switch located on the throttle body. This resulted in the vehicle operating closed loop but without the benefit of a load sensor.

Any time the C-4 "check engine" light came on the diagnostic code was obtained and noted. The lack of a light at the start of the test sequence was also noted.

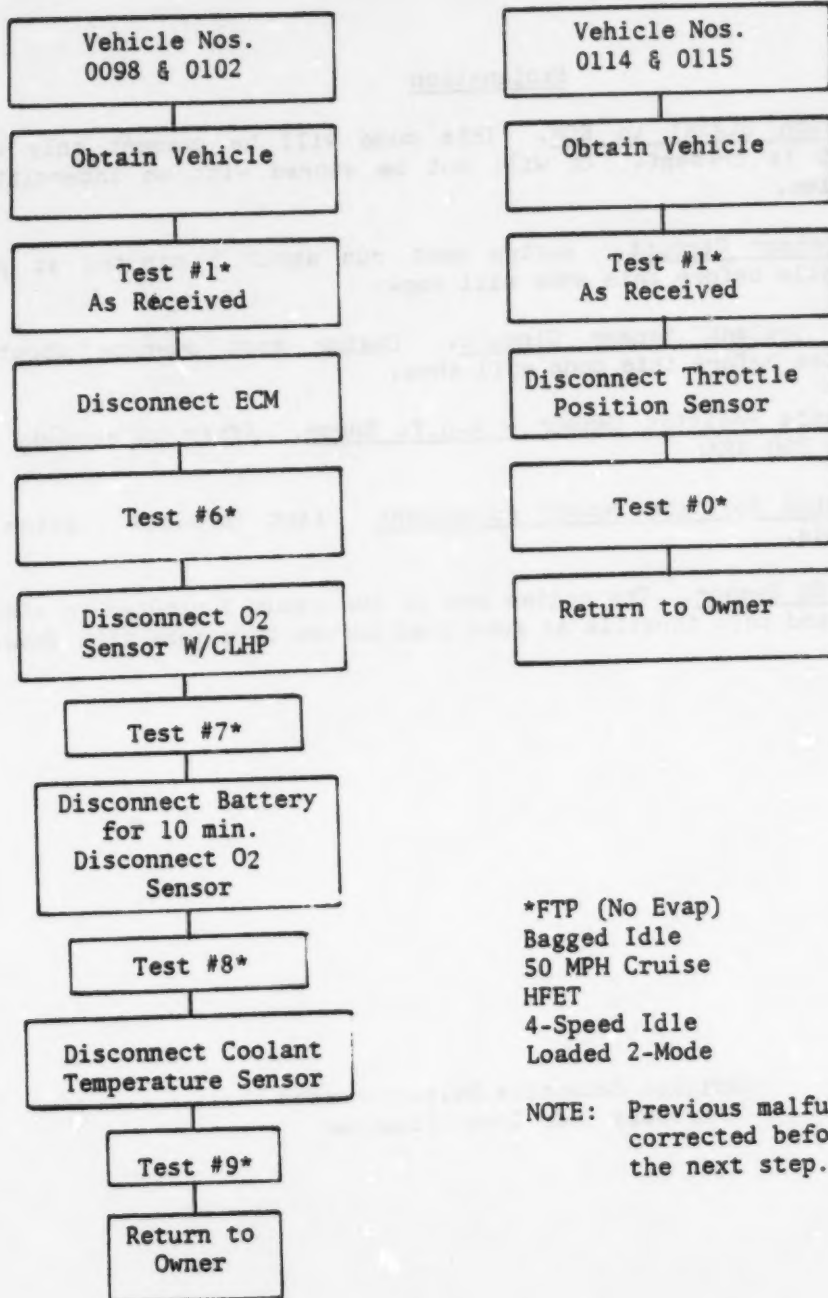
Cadillac Selective Malperformance/Restorative
Maintenance Program

Figure 5 (Continued)

<u>Code</u>	<u>Explanation</u>
12	<u>No Tach Signal to ECM.</u> This code will be present only when fault is present. It will not be stored with an intermittent problem.
13	<u>O2 Sensor Circuit.</u> Engine must run about 5 minutes at part throttle before this code will show.
15	<u>Open Coolant Sensor Circuit.</u> Engine must operate about 5 minutes before this code will show.
21	<u>Throttle Position Sensor - W.O.T. Error.</u> After 10 seconds and below 800 RPM.
43	<u>Throttle Position Sensor Adjustment.</u> Part throttle - After 10 seconds.
44	<u>Lean O2 Sensor.</u> The engine has to run about 3 minutes in closed loop and part throttle at road load before this code will show.

Cadillac Selective Malperformance
Trouble Code Identification

Cadillac Selective Malperformance Testing Flow Chart



*FTP (No Evap)
Bagged Idle
50 MPH Cruise
HFET
4-Speed Idle
Loaded 2-Mode

NOTE: Previous malfunctions were corrected before continuing to the next step.

Figure 5

Quality Assurance Activity Flow Chart

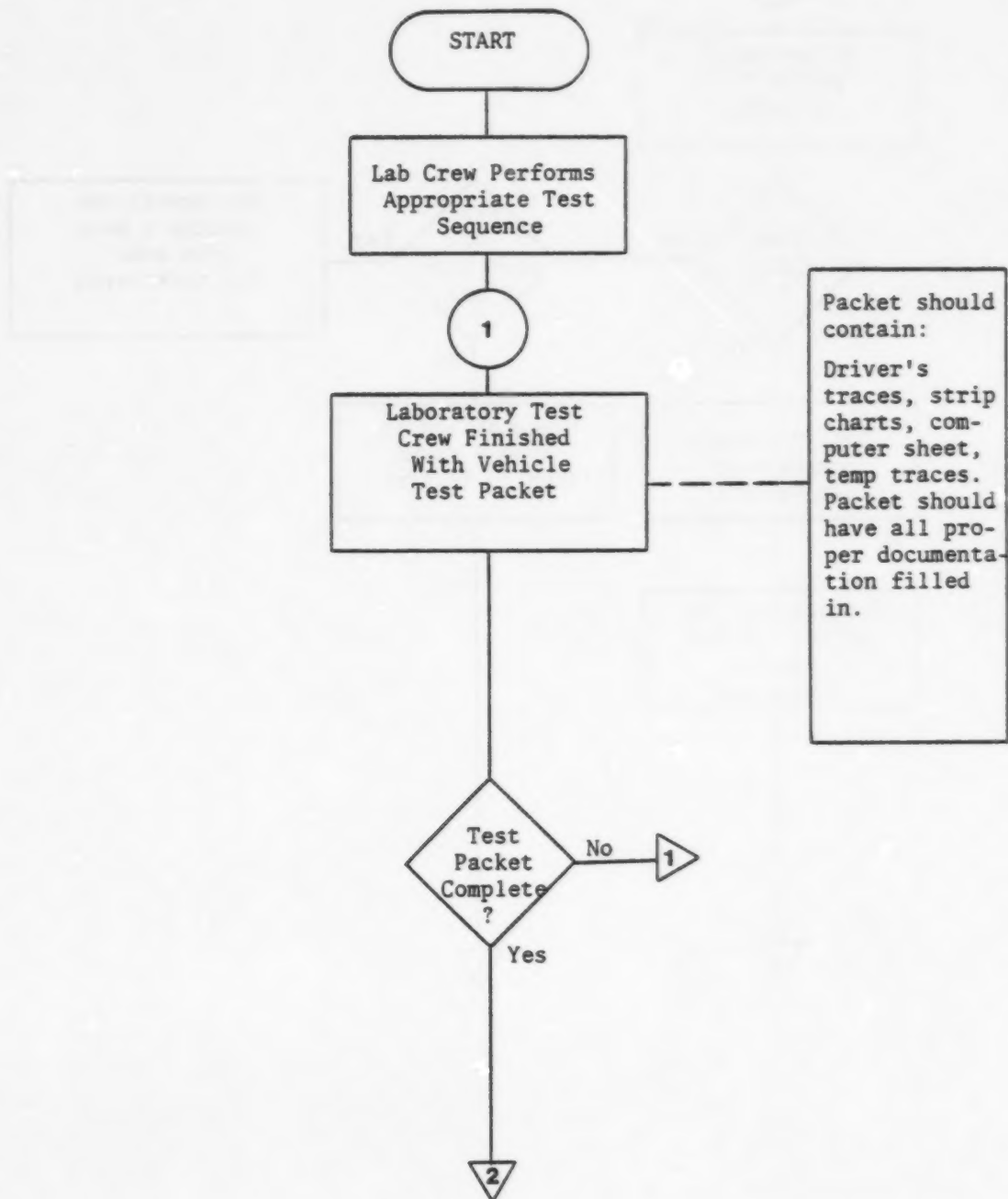


Figure 6

Quality Assurance Activity Flow Chart

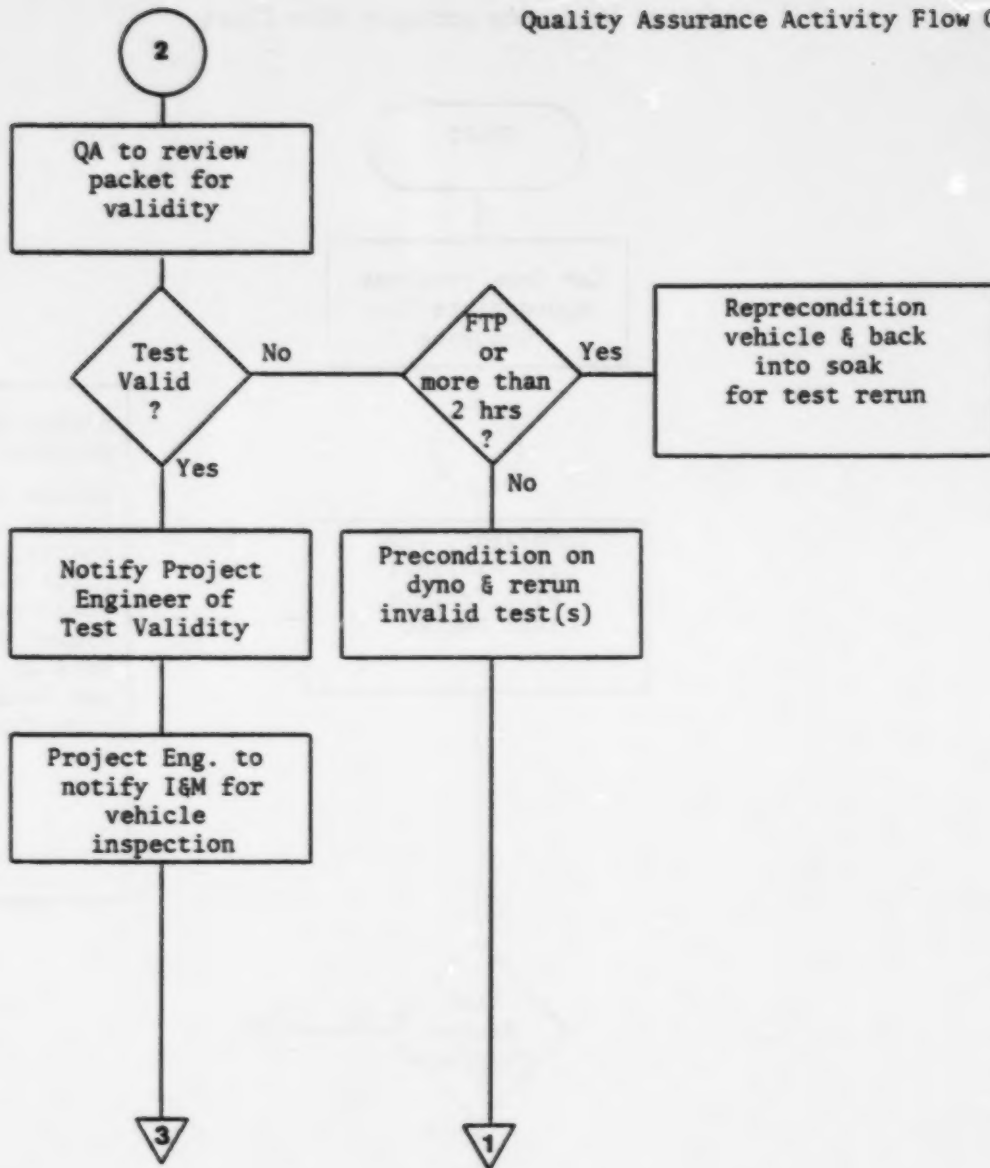


Figure 6 Continued

Quality Assurance Activity Flow Chart

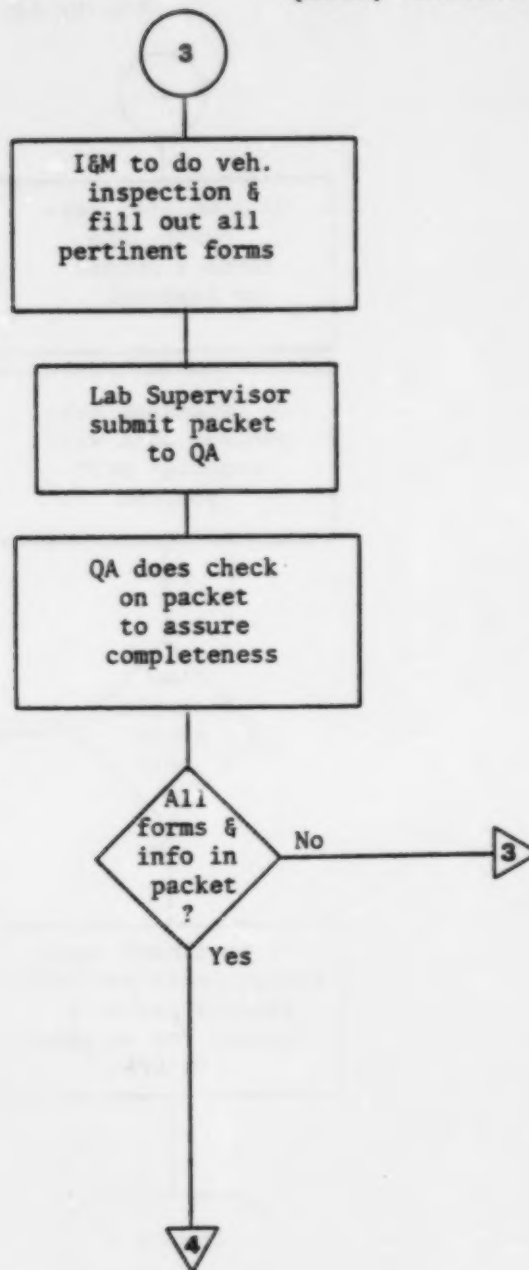


Figure 6 Continued

Quality Assurance Activity Flow Chart

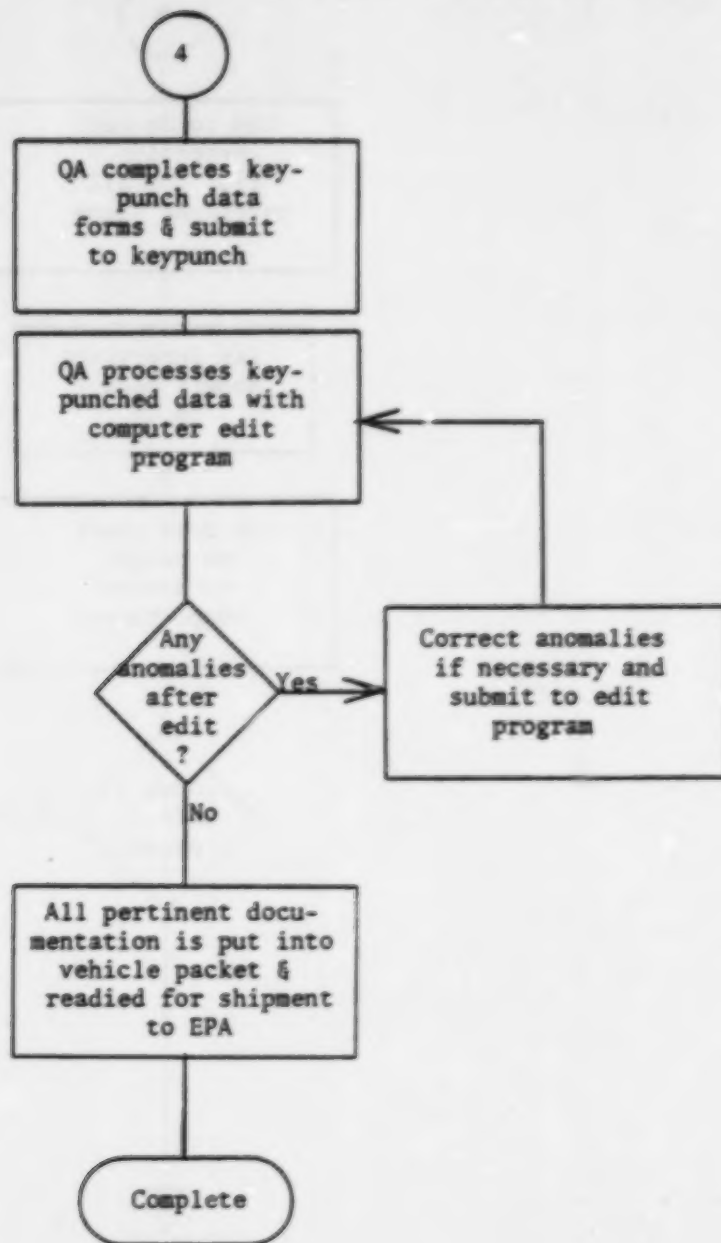


Figure 6 Continued

LIST OF TABLES

- Table 1 Summary of Vehicle Makes
- Table 2 Summary of Test Vehicle Characteristics by Model Year
- Table 3 Summary of Exhaust Emissions Test Results by Model Year (1975 Federal Test Procedure - As-Received)
- Table 4 Vehicles Meeting California Standards, 1979-1980 Model Years
- Table 5 Summary of Exhaust Emissions and Fuel Economy Results Improvements at Successive Stages of Restorative Maintenance
- Table 6 Summary of Exhaust Emissions and Fuel Economy Results at Successive Stages of Selective Malperformance
- Table 7 Summary of Evaporative Emissions Results by Model Year
- Table 8 Summary of Exhaust Emissions Test Results by Model Year Highway Fuel Economy Tests - As-Received
- Table 9 Summary of Exhaust Emissions Test Results by Model Year Bagged Idle Test - As-Received
- Table 10 Summary of Exhaust Emissions Test Results by Model Year 50 MPH Cruise - As-Received
- Table 11 Summary of Exhaust Emissions Test Results by Model Year Four-Speed Idle Test - As-Received
- Table 12 Summary of Exhaust Emissions Test Results by Model Year Bagged Idle Test - As-Received
- Table 13 Summary of Emissions Component Inspection Information by Model Year
- Table 14 Inspection Results by Model Year and Make for Vehicles with Some Malperformance
- Table 15 Methane Content Correction and Deterioration Factors by Engine Family

TABLE 1
SUMMARY OF VEHICLE MAKES
LOS ANGELES

MAKE	1979	1980	TOTAL
BUIC	0	10	10
CADI	0	23	23
CHEV	0	21	21
OLDS	0	11	11
PONT	0	1	1
FORD	0	18	18
LINC	0	2	2
MERC	0	2	2
CHRY	0	5	5
DODG	1	3	4
PLYM	3	5	8
AMC	0	2	2
DATS	0	4	4
VW	0	3	3
AUDI	0	2	2
TOTAL	4	112	116

TABLE 2
SUMMARY OF TEST VEHICLE CHARACTERISTICS BY MODEL YEAR

	LOS ANGELES		
	1979	1980	TOTAL
INERTIA WT (LBS)			
2000	0	0	0
2250	0	6	6
2500	0	14	14
2750	0	0	0
3000	0	17	17
3500	3	27	30
4000	1	24	25
4500	0	24	24
5000	0	0	0
5500	0	0	0
TOTAL	4	112	116
ENGINE DISPLACEMENT (CUBIC INCHES)			
UNDER 251	4	56	60
251 - 330	0	22	22
331 - 399	0	34	34
OVER 399	0	0	0
TOTAL	4	112	116
NUMBER OF CYLINDERS			
4	0	23	23
6	4	39	39
8	0	54	54
ROTARY	0	0	0
TOTAL	4	112	116

TABLE 3
SUMMARY OF EXHAUST EMISSION TEST RESULTS BY MODEL YEAR
1979 FEDERAL TEST PROCEDURE - AS RECEIVED
LOS ANGELES

MODEL YEAR	NUMBER OF VEHICLES	AVERAGE MILEAGE	HC MEAN S.D.	CO MEAN S.D.	CO2 MEAN S.D.	NOXC MEAN S.D.	FUEL ECON MEAN S.D.
1979	4	5435	0.41 0.17	11.26 8.67	586.86 36.30	0.99 0.46	14.63 1.10
1980	112	5413	0.42 0.59	7.89 21.14	541.10 104.90	0.73 0.37	16.00 3.52
TOTAL	116	5420	0.43 0.58	8.01 20.83	542.67 103.57	0.73 0.37	15.95 3.48

TABLE 4
VEHICLES MEETING CALIFORNIA STANDARDS
1979 - 1980 MODEL YEARS
LOS ANGELES

MODEL YEAR	NUMBER OF VEHICLES	AVERAGE MILEAGE	HC (0.41 GPM) NO. PCT.	CO (9.0 GPM) NO. PCT.	NOXC (11.5 GPM) NO. PCT.	MEETING ALL THREE NO. PCT.
1979	4	5435	0 0.0	2 50.0	4 100.0	0 0.0
1980	112	5413	84 75.0	99 88.4	98 87.5	70 62.5

TABLE 5
SUMMARY OF EXHAUST EMISSION AND FUEL ECONOMY
RESULTS AND IMPROVEMENTS AT SUCCESSIVE STAGES OF MAINTENANCE
- FEDERAL TEST PROCEDURE -

LOS ANGELES

TEST NO.	NUMBER OF VEHICLES	AVERAGE MILEAGE	HC		CO		CO2		NOXC		AVERAGE FUEL ECON.
			MEAN	S. D.	MEAN	S. D.	MEAN	S. D.	MEAN	S. D.	
1	19.	7720.	1.00	1.29	26.44	48.12	545.80	94.40	0.88	0.63	15.03
2	19.	7900.	0.49	0.26	8.40	6.30	543.60	104.32	0.80	0.34	15.90
PCT IMPR			51.54		68.21		0.40		9.04		5.76
2	8.	9850.	0.66	0.30	12.22	8.10	547.49	118.79	0.76	0.47	15.60
3	8.	9895.	0.53	0.26	8.80	6.39	562.43	127.78	0.84	0.38	15.36
PCT IMPR			19.49		27.97		-2.73		-10.16		-1.59
3	3.	11027.	0.78	0.19	15.13	6.37	483.10	62.48	0.75	0.14	17.42
4	3.	11095.	0.70	0.24	12.64	7.78	485.17	72.78	0.74	0.13	17.50
PCT IMPR			9.71		16.51		-0.43		1.81		0.42
4	2.	10966.	0.83	0.11	14.50	10.00	462.11	84.06	0.67	0.03	18.20
5	2.	11032.	0.68	0.20	9.17	4.76	446.61	82.24	0.74	0.05	19.16
PCT IMPR			18.37		36.77		3.35		-11.24		5.26

TABLE 6
SUMMARY OF EXHAUST EMISSION AND FUEL ECONOMY
RESULTS AT SUCCESSIVE STAGES OF SELECTIVE MALPERFORMANCE
- FEDERAL TEST PROCEDURE -

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

TEST NO.	NUMBER OF VEHICLES	AVERAGE MILEAGE	HC		CO		CO ₂		NO _x		AVERAGE FUEL ECON.
			MEAN	S. D.	MEAN	S. D.	MEAN	S. D.	MEAN	S. D.	
1	2	4151.	0.31	0.06	2.99	0.53	651.83	20.42	0.78	0.29	13.50
6	2	4186.	1.17	0.03	46.81	19.13	645.97	6.65	0.33	0.16	12.27
PCT IMPR			-280.99		-1465.22		0.90		57.23		-9.09
1	2	4151.	0.31	0.06	2.99	0.53	651.83	20.42	0.78	0.29	13.50
7	2	4225.	0.78	0.09	15.12	3.65	652.35	20.11	0.56	0.09	13.08
PCT IMPR			-152.21		-405.67		-0.08		27.82		-3.11
1	2	4151.	0.31	0.06	2.99	0.53	651.83	20.42	0.78	0.29	13.50
8	2	4262.	0.65	0.09	12.69	3.49	591.67	91.72	0.54	0.03	14.46
PCT IMPR			-111.06		-324.45		9.23		30.06		7.14
1	2	4151.	0.31	0.06	2.99	0.53	651.83	20.42	0.78	0.29	13.50
9	2	4321.	0.35	0.00	2.58	0.01	633.28	20.25	0.96	0.03	13.90
PCT IMPR			-14.25		13.76		2.85		-23.34		2.98
1	2	6033.	0.28	0.03	1.70	0.39	669.20	20.71	0.87	0.17	13.19
0	2	6081.	0.76	0.06	16.32	5.37	693.21	13.12	0.58	0.05	12.31
PCT IMPR			-169.09		-860.28		-3.59		32.95		-6.72

TABLE 7
SUMMARY OF EVAPORATIVE EMISSIONS RESULTS
BY MODEL YEAR

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS

MODEL YEAR	NUMBER OF VEHICLES	DIURNAL MEAN S. D.	HOT SOAK MEAN S. D.	TOTAL MEAN S. D.
1979	0.	0.00 0.00	0.00 0.00	0.00 0.00
1980	25.	0.87 0.78	1.04 1.11	1.91 1.61
TOTAL	25.	0.87 0.78	1.04 1.11	1.91 1.61

TABLE 8
SUMMARY OF EXHAUST EMISSION TEST RESULTS BY MODEL YEAR
HIGHWAY FUEL ECONOMY TEST - AS RECEIVED

LOS ANGELES

MODEL YEAR	NUMBER OF VEHICLES	AVERAGE MILEAGE	HC MEAN S. D.	CO MEAN S. D.	CO2 MEAN S. D.	NOYC MEAN S. D.	FUEL ECON MEAN S. D.
1979	4.	5635.	0.19 0.11	3.86 5.80	463.98 35.48	1.92 1.44	18.85 1.65
1980	112.	5413.	0.15 0.35	3.32 12.92	378.56 60.99	0.63 0.45	23.08 4.42
TOTAL	116.	5420.	0.15 0.34	3.33 12.73	381.50 62.20	0.67 0.56	22.90 4.44

TABLE 9
SUMMARY OF EXHAUST EMISSION TEST RESULTS BY MODEL YEAR
BAGGED IDLE TEST - AS RECEIVED

EXHAUST EMISSIONS IN GRAMS		LOS ANGELES							
MODEL YEAR	NUMBER OF VEHICLES	HC		CO		CO2		NOXC	
		MEAN	S. D.	MEAN	S. D.	MEAN	S. D.	MEAN	S. D.
1979	4.	0.45	0.70	0.48	0.59	211.28	12.06	0.24	0.09
1980	112.	0.28	0.36	2.51	7.27	251.74	91.29	0.15	0.18
TOTAL	116.	0.28	0.38	2.44	7.15	250.34	90.02	0.16	0.18

TABLE 10
SUMMARY OF EXHAUST EMISSION TEST RESULTS BY MODEL YEAR
50 MPH CRUISE - AS RECEIVED

		LOS ANGELES					
MODEL YEAR	NUMBER OF VEHICLES	HC, PPMEX		CO, PCT		NO, PPM	
		MEAN	S. D.	MEAN	S. D.	MEAN	S. D.
1979	4.	2.25	3.86	0.04	0.04	151.00	75.73
1980	112.	10.30	23.23	0.13	0.61	132.26	126.86
TOTAL	116.	10.03	22.87	0.13	0.59	132.91	125.28

TABLE 11
SUMMARY OF EXHAUST EMISSION TEST RESULTS BY MODEL YEAR
FOUR SPEED IDLE TEST - AS RECEIVED

LOS ANGELES

MODEL YEAR	NUMBER OF VEHICLES	TEST PHASE	HC, PPM/EX MEAN S. D.	CO, PCT MEAN S. D.	NO, PPM MEAN S. D.
1979	4.	IDLE (N)	21.75 19.36	0.02 0.01	24.75 9.98
	4.	2500 RPM	8.00 6.53	0.05 0.02	45.00 3.65
	4.	IDLE (N)	8.00 9.80	0.03 0.03	30.50 5.92
	4.	IDLE (D)	11.25 10.87	0.02 0.01	44.00 23.02
1980	112.	IDLE (N)	11.58 25.16	0.10 0.54	20.41 18.78
	112.	2500 RPM	6.14 17.98	0.11 0.63	43.88 32.89
	112.	IDLE (N)	6.06 22.35	0.11 0.68	20.59 17.64
	101.	IDLE (D)	7.01 26.71	0.12 0.81	46.70 57.06
TOTAL	116.	IDLE (N)	11.93 24.99	0.09 0.53	20.56 18.54
	116.	2500 RPM	6.21 17.70	0.11 0.62	43.91 32.32
	116.	IDLE (N)	6.13 22.02	0.10 0.67	20.93 17.46
	105.	IDLE (D)	7.16 26.31	0.12 0.80	46.60 56.18

TABLE 12
SUMMARY OF EXHAUST EMISSION TEST RESULTS BY MODEL YEAR
LOADED TWO-MODE TEST - AS RECEIVED

LOS ANGELES

MODEL YEAR	NUMBER OF VEHICLES	TEST PHASE	HC, PPM/EX MEAN S. D.	CO, PCT MEAN S. D.	NO, PPM MEAN S. D.
1979	4.	30 MPH	8.75 8.22	0.06 0.04	91.25 23.56
		IDLE	12.50 5.97	0.02 0.01	25.50 8.35
1980	112.	30 MPH	10.96 25.70	0.12 0.49	117.41 127.22
		IDLE	7.37 23.06	0.09 0.60	18.79 17.52
TOTAL	116.	30 MPH	10.88 25.29	0.11 0.48	116.51 125.14
		IDLE	7.55 22.69	0.09 0.59	19.03 17.31

TABLE 13
SUMMARY OF EMISSION COMPONENT INSPECTION INFORMATION
BY MODEL YEAR

LOS ANGELES

EVALUATION CODES : 1-NO MALPERFORMANCE, 2-SOME MALPERFORMANCE, 3-NOT APPLICABLE

MODEL YEAR	NUMBER OF VEHICLES	INDUC	FUEL	CHOKE	IGN	EGR	AIR	PCV	EXH	EVAP	MISC	3-WAY	AVERAGE HOURS
		1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
1979	4	4	0	0	1	3	0	2	0	4	0	0	2.6
1980	112	109	3	0	96	16	0	103	9	0	106	6	2.8
TOTAL	116	113	3	0	97	19	0	105	11	0	110	6	2.8

TABLE 14
INSPECTION RESULTS BY MODEL YEAR AND MAKE FOR VEHICLES WITH SOME MALPERFORMANCE

MODEL YEAR	MAKE	NO. OF VEHIC	INDUC	FUEL	CHOKE	IGN	EGR	AIR	SYSTEM	PCV	EXH	EVAP	MISC	3-WAY	AVG HRS
			NO. PCT	NO. PCT	NO. PCT	NO. PCT	NO. PCT	NO. PCT	NO. PCT	NO. PCT	NO. PCT	NO. PCT	NO. PCT	NO. PCT	
1979	DODG	1	0	0	0	0	0	0	0	0	0	0	0	0	2.5
	PLYM	2	0	0	0	0	0	0	0	0	0	0	0	0	3.0
1980	BUIC	4	1	25	0	0	0	0	0	1	25	0	0	0	2.9
	CADI	9	0	0	0	0	0	0	0	0	0	0	0	0	3.1
	CHEV	8	0	0	0	0	0	0	0	0	0	0	0	0	2.8
	OLDS	4	1	25	0	0	0	0	0	0	0	0	0	0	2.8
	PONT	1	0	0	0	0	0	0	0	0	0	0	0	0	4.0
	FORD	6	1	16.7	2	33.3	0	0	0	1	16.7	0	0	0	2.9
	LINC	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	MERC	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	CHRY	4	0	0	0	0	0	0	0	0	0	0	0	0	0.0
	DODG	2	0	0	0	0	0	0	0	0	0	0	0	0	2.4
	PLYM	3	0	0	0	0	0	0	0	0	0	0	0	0	3.2
	ANC	1	0	0	0	0	0	0	0	0	0	0	0	0	2.9
	DATS	1	0	0	0	0	0	0	0	0	0	0	0	0	3.0

Reproduced from
best available copy.

LIST OF APPENDICES

- Appendix A Listing of Vehicle and Test Parameters
- Appendix B Listing of Test Vehicle Use & Maintenance Data
- Appendix C Listing of Federal Test Procedure Results on Individual Vehicles
- Appendix D Listing of Evaporative Emissions Test Procedure Results on Individual Vehicles
- Appendix E Listing of Highway Fuel Economy Test Results on Individual Vehicles
- Appendix F Listing of Bagged Idle Emissions on Individual Vehicles
- Appendix G Listing of 50 MPH Cruise Test Results on Individual Vehicles
- Appendix H Listing of Four-Speed Idle Test Results on Individual Vehicles
- Appendix I Listing of Loaded Two Mode Test Results on Individual Vehicles
- Appendix J Listing of Driveability Evaluations on Individual Vehicles
- Appendix K Listing of Emission Component Inspection Information on Individual Vehicles

APPENDIX A - LISTING OF VEHICLE AND TEST PARAMETERS

Legend

VEH	Vehicle Number
RUN	Run Number
DATE	Date of Test (month, day, year)
YR	Model Year
MAKE	Vehicle Make
MDL	Vehicle Model
ENGINE FAMILY	Engine Family
C	Number of Cylinders
CID	Engine Displacement in Cubic Inches
V	Number of Carburetor Venturis (0: fuel injection)
T	Type of Transmission (1: automatic; 2: semi-automatic; 3: 3-speed manual; 4: 4-speed manual; 5: 5-speed manual)
AC	Air Conditioning: (1: Yes; 2: No)
FT	Fuel Tank Capacity in Gallons
CAT	Catalyst (1: Oxidation; 2: Three-way; 3: None; 4: Three-way plus Oxidation)
IRPM	Idle RPM, Measured
IRPMS	Idle RPM, Manufacturer's Specification
IGN	Ignition Timing in Degrees, actual (plus sign indicates before top dead center; negative sign indicates after top dead center; 0 indicates top dead center)
IGNS	Ignition Timing in Degrees, Manufacturer's Specification (plus sign indicates before top dead center; negative sign indicates after top dead center; 0 indicates top dead center)
INRT	Dynamometer Inertia Weight Setting
RLHP	Actual Road Load Horsepower Setting
L	Was 10% RLHP added to simulate air conditioner (1: Yes; 2: No; 3: Manufacturer supplied)
DB	Dry bulb temperature (degrees Fahrenheit)
WB	Wet bulb temperature (degrees Fahrenheit)
BAROM	Barometric Pressure (inches Hg)
TEST	Test Number

APPENDIX A
LISTING OF VEHICLE AND TEST PARAMETERS
ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	RUN	DATE	YR	MAKE	MODEL	ENGINE	FAMILY	C	CID	V	T	AC	FT	CAT	IRPM	IRPHS	IGN	IGMS	INRT	RLMP	L	DB	MS	BARCH	TEST	
0001	1207	31080	80	PONT	FIRE	O1V4MCRZ		8	305	4	1	1	21	2	450	450	+04	+04	4000	10.5	3	71	59	29.89	1	
0001	1214	31780	80	PONT	FIRE	O1V4MCRZ		8	305	4	1	1	21	2	590	450	+04	+04	4000	10.5	3	74	57	29.99	2	
0001	1220	32080	80	PONT	FIRE	O1V4MCRZ		8	305	4	1	1	21	2	450	450	+04	+04	4000	10.5	3	71	57	30.12	3	
9002	1181	22080	79	PLYM	VOLA	9CD-225-1-AP		6	225	2	1	1	18	2	810	750	+15	+15	3500	11.3	3	70	62	29.91	1	
9003	1183	22180	79	PLYM	VOLA	9CD-225-1-AP		6	225	2	1	1	18	2	850	750	+15	+15	3500	11.3	3	72	63	29.73	1	
9003	1214	31880	79	PLYM	VOLA	9CD-225-1-AP		6	225	2	1	1	18	2	775	750	+15	+15	3500	11.3	3	71	55	29.66	2	
0004	1217	31980	80	VOLA	RAB8 37CL			4	97	0	9	1	10	2	920	940	+03	+03	2250	6.8	3	70	56	29.94	1	
0005	1208	31080	80	CHEV	IMPA	O1V4MCRZ		8	305	4	1	1	25	2	855	550	+05	+04	4000	10.3	3	69	58	29.83	1	
0005	1215	31780	80	CHEV	IMPA	O1V4MCRZ		8	305	4	1	1	25	2	610	550	+05	+04	4000	10.3	3	74	58	29.88	2	
0005	1221	32080	80	CHEV	IMPA	O1V4MCRZ		8	305	4	1	1	25	2	900	750	+15	+15	4000	12.3	3	73	61	30.04	3	
9006	1211	31180	79	DODG	STAM	9CD-225-1-AP		6	225	2	1	1	20	2	400	650	+15	+15	3500	12.5	3	70	60	29.81	1	
0007	1209	31080	80	CHEV	MONT	O4E4UCD		6	231	2	1	1	18	4	910	750	+15	+15	3500	11.3	3	70	56	29.86	1	
9008	1223	32480	79	PLYM	VOLA	9CD-225-1-AP		6	225	2	1	1	18	2	975	750	+15	+15	3500	11.3	3	73	56	29.87	2	
9008	1230	32780	79	PLYM	VOLA	9CD-225-1-AP		6	225	2	1	1	18	2	920	750	+12	+12	3500	11.8	3	75	65	29.76	1	
0009	1497	8	980	80	PLYM	VOLA	OCB-225-1-ARP		6	225	1	1	18	4	850	750	+12	+12	3500	11.8	3	75	66	29.69	2	
0009	1501	8	980	80	PLYM	VOLA	OCB-225-1-ARP		6	225	1	1	18	4	885	750	+12	+12	3500	11.8	3	75	66	29.78	3	
0009	1504	81380	80	PLYM	VOLA	OCB-225-1-ARP		6	225	1	1	1	18	4	750	750	+12	+12	3500	11.8	3	72	62	29.83	4	
0009	1509	81380	80	PLYM	VOLA	OCB-225-1-ARP		6	225	1	1	1	18	4	625	750	+12	+12	3500	11.8	3	71	63	29.93	5	
0010	1512	82080	80	PLYM	VOLA	OCB-225-1-ARP		6	225	1	1	1	18	4	425	550	+16	+15	3500	9.0	3	70	54	29.92	1	
0010	1229	32780	80	BUIC	SKYH	O4E2MCRZ		6	231	2	1	1	18	2	675	550	+12	+15	3500	11.6	3	71	58	29.86	1	
0011	1227	32680	80	GLDS	CUTL	O4E2MCRZ		6	231	2	1	1	18	2	550	550	+12	+15	3500	11.6	3	70	56	29.92	2	
0011	1236	4	280	80	GLDS	CUTL	O4E2MCRZ		6	231	2	1	1	18	2	850	800	+20	+18	2500	9.2	3	70	59	29.86	1
0012	1231	33180	80	CHEV	CHET	O1H2PC		4	98	2	1	1	13	2	740	800	+18	+18	2500	9.2	3	71	59	29.83	1	
0013	1232	33180	80	CHEV	CHET	O1H2PC		4	98	2	1	1	13	2	755	850	+11	+06	3000	8.0	3	73	60	29.92	1	
0014	1237	4	280	80	FORD	MUST 2.3 AX		4	140	2	4	1	12	4	940	800	+18	+18	2500	9.2	3	71	57	29.73	1	
0015	1234	4	180	80	CHEV	CHET	O1H2PC		4	98	2	1	1	13	2	610	550	+04	+04	3500	12.5	3	75	64	29.89	1
0016	1243	4	980	80	CHEV	MONT	O1V4MCRZ		8	305	4	1	1	18	2	610	550	+15	+15	3500	11.6	3	77	64	29.90	1
0017	1258	41680	80	GLDS	CUTL	O4E2MCRZ		6	231	2	1	1	18	4	710	550	+15	+15	3500	9.0	3	72	63	29.98	1	
0018	1242	4	980	80	GLDS	STAR	O3E2MCRZ		4	151	2	1	1	19	2	750	650	+12	+12	3000	9.0	3	72	63	29.98	1
0019	1259	41680	80	CHEV	CHET	O1H2PC		4	98	2	1	1	1	12	2	850	800	+18	+18	2250	9.2	3	81	66	29.88	1
0020	1273	42480	80	BUIC	CENT	O1V4MCRZ		8	305	4	1	1	18	2	525	550	+04	+04	3500	11.2	3	73	58	29.87	1	
0021	1293	5	780	80	BUIC	LESA	O4E2MCRZ		6	231	2	1	1	25	2	550	450	+15	+15	4000	12.9	3	71	62	29.94	1
0022	1267	42380	80	CHEV	MONT	O4E4UCD		6	231	4	1	1	18	4	450	650	+10	+10	4500	9.7	3	76	58	29.81	1	
0023	1274	42480	80	CAD	SEVI	O4E2MCRZ		6	350	0	1	1	1	21	4	590	400	+10	+10	4500	9.7	3	76	58	29.81	1
0024	1275	42680	80	BUIC	REGA	O4E2MCRZ		6	231	2	1	1	18	2	580	550	+13	+13	3500	11.2	3	73	60	29.83	1	
0025	1276	42680	80	BUIC	REGA	O4E2MCRZ		6	231	2	1	1	18	2	425	550	+14	+15	3500	9.0	3	74	61	29.83	1	
0026	1278	42980	80	CHEV	SKYH	O4E2MCRZ		6	231	2	1	1	13	2	770	800	+17	+18	2500	9.2	3	76	63	29.82	1	
0027	1295	5	880	80	FORD	LTD	5.0HAC		6	351	2	1	1	19	4	635	640	+26	+30	4000	11.3	3	73	58	29.94	1
0028	1298	51280	80	BUIC	CENT	O4E2MCRZ		6	231	2	1	1	18	2	670	620	+15	+15	3500	11.2	3	73	58	29.99	1	
0029	1310	51780	80	CHEV	CHET	O1H2PC		4	98	2	1	1	13	2	775	800	+18	+18	2500	9.2	3	72	60	29.88	1	



APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	RUN	DATE	YR	MAKE	MODL	ENGINE	FAMILY	C	CID	V	T	AC	FT	CAT	IRPM	IRPMS	IGN	IGMS	INRT	RLHP	L	DB	WB	BARDH	TEST	
0030	1307	51580	80	DATS	B10	L24/20C		6	146	0	1	1	16	2	675	650	+10	+10	3000	10.2	3	72	61	29.82	1	
0031	1308	51580	80	CHEV	CHET	01W2PC		4	98	2	1	2	13	2	890	800	+18	+18	2500	9.2	3	73	62	29.82	1	
0032	1316	52080	80	CHEV	CHET	01W2PC		4	98	2	1	1	13	2	775	800	+19	+18	2500	9.2	3	71	62	29.83	1	
0032	1325	52380	80	CHEV	CHET	01W2PC		4	98	2	1	1	13	2	800	800	+19	+18	2500	9.2	3	72	61	29.86	2	
0032	1345	6480	80	CHEV	CHET	01W2PC		4	98	2	1	1	13	2	800	800	+20	+18	2500	9.2	3	73	62	29.89	3	
0033	1315	52080	80	CHEV	CHET	01W2PC		4	98	2	4	1	13	2	820	800	+11	+12	2250	9.2	3	71	62	29.82	1	
0034	1313	51980	80	BUIC	CENT	04E2MCRZ		6	231	2	1	1	18	2	615	550	+15	+15	3500	11.2	3	71	61	29.86	1	
0035	1314	51980	80	CHEV	CHET	01W2PC		4	98	2	4	1	13	2	800	800	+11	+12	2250	9.2	3	73	64	29.82	1	
0036	1318	52180	80	MERC	STAM	5.8WAXC		8	351	2	1	1	20	4	645	640	+28	+30	4500	12.0	3	72	61	29.88	1	
0037	1319	52180	80	MERC	MARQ	5.8WAXC		8	351	2	1	1	19	4	690	640	+28	+30	4000	11.3	3	72	61	29.89	1	
0038	1321	52280	80	GLDS	CUTL	01Y4MCRZ		8	305	4	1	1	18	2	630	550	+06	+04	3500	11.6	3	72	61	29.87	1	
0039	1323	52280	80	BUIC	CENT	04E2MCRZ		6	231	2	1	1	18	2	620	620	+13	+15	3500	11.2	3	73	63	29.87	1	
0040	1324	52280	80	AHC	CONC	CP-3N1		6	258	2	1	1	22	2	690	600	+06	+08	3500	11.0	3	74	63	29.87	1	
0041	1326	52380	80	AHC	STAM	CP-3N1		6	258	2	1	1	22	2	625	600	+03	+08	3500	11.8	3	72	61	29.87	1	
0042	1327	52300	80	FORD	LTD	5.8WAXC		8	351	2	1	1	19	4	625	640	+28	+30	4000	11.3	3	74	62	29.86	1	
0043	1329	52680	80	BUIC	LEBA	04E2MCRZ		6	231	2	1	1	25	2	550	550	+16	+15	4000	12.2	3	72	61	29.94	1	
0044	1330	52680	80	FORD	STAM	3.300		6	200	2	1	1	12	14	4	640	600	+10	+10	3000	11.6	3	72	61	29.92	1
0045	1328	52680	80	GLDS	CUTL	01Y4MCRZ		8	305	4	1	1	18	2	590	550	+03	+04	3500	11.3	3	72	61	29.92	1	
0046	1332	52980	80	FORD	MUST	3.300		6	200	1	1	1	12	13	4	650	600	+10	+10	3000	9.4	3	73	62	29.95	1
0046	1348	6580	80	FORD	MUST	3.300		6	200	1	1	1	12	13	4	635	600	+10	+10	3000	9.4	3	71	61	29.88	2
0047	1333	52980	80	DATS	B10	L24/20C		6	146	0	5	1	16	2	700	700	+08	+10	3000	10.2	3	72	62	29.93	1	
0048	1334	52980	80	FORD	STAM	3.300		6	200	2	1	1	14	4	600	600	+10	+10	3000	11.3	3	72	63	29.88	1	
0049	1336	53080	80	BUIC	CENT	04E2MCRZ		6	231	2	1	1	18	2	620	550	+13	+15	3500	11.2	3	73	62	29.89	1	
0050	1340	6380	80	FORD	FAIR	3.300		6	200	1	1	1	14	4	600	600	+10	+10	3000	10.8	3	72	62	29.88	1	
0051	1350	6580	80	FORD	LTD	5.8WAXC		8	351	2	1	1	19	4	650	550	+28	+30	4000	11.3	3	72	61	29.88	1	
0052	1341	6380	80	GLDS	CUTL	01Y4MCRZ		8	305	4	1	1	16	2	525	550	+08	+04	3500	11.6	3	73	62	29.89	1	
0053	1353	6480	80	FORD	FAIR	3.300		6	200	1	1	1	14	4	610	600	+10	+10	3000	10.8	3	72	62	29.90	1	
0054	1343	6480	80	FORD	MUST	3.300		6	200	1	1	1	13	4	550	600	+09	+10	3000	9.4	3	70	59	29.94	1	
0055	1352	6480	80	GLDS	CUTL	01Y4MCRZ		8	305	4	1	1	13	4	550	600	+10	+10	3000	11.6	3	71	61	29.93	1	
0056	1426	71580	80	CAD1	SEVI	06J0RCZ		8	350	0	1	1	21	4	575	600	+10	+10	4500	9.7	3	76	64	29.87	1	
0057	1468	72580	80	LINC	CONT	5.8WAXC		8	351	2	1	1	20	4	620	550	+28	+30	4500	13.5	3	70	59	29.94	1	
0057	1488	72580	80	LINC	CONT	5.8WAXC		8	351	2	1	1	20	4	620	550	+28	+30	4500	13.5	3	71	63	29.78	2	
0058	1360	61180	80	CHEV	CAMA	01Y4MCRZ		8	305	4	1	1	21	2	650	550	+02	+04	4000	10.2	3	74	66	29.91	1	
0058	1383	62580	80	CHEV	CAMA	01Y4MCRZ		8	305	4	1	1	21	2	650	550	+02	+04	4000	10.2	3	73	63	29.88	2	
0059	1356	61080	80	FORD	FAIR	3.300		6	200	1	1	1	14	4	575	600	+10	+10	3000	10.8	3	73	61	29.83	1	
0060	1378	62480	80	FORD	FAIR	3.300		6	200	1	1	1	14	4	650	600	+10	+10	3000	10.8	3	75	63	29.86	1	
0061	1373	62180	80	FORD	STAM	5.8WAXC		8	351	2	1	1	20	4	650	550	+29	+30	4500	12.0	3	76	65	29.90	1	
0061	1389	62680	80	FORD	STAM	5.8WAXC		8	351	2	1	1	20	4	650	550	+29	+30	4500	12.0	3	74	63	29.86	2	
0061	1411	7300	80	FORD	STAM	5.8WAXC		8	351	2	1	1	20	4	650	550	+29	+30	4500	12.0	3	74	63	29.86	2	
0062	1379	62480	80	CHEV	CAMA	01Y4MCRZ		8	305	4	1	1	21	2	575	550	+05	+04	4000	10.2	3	74	63	29.85	1	

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	RUN	DATE	YR	MAKE	MODEL	ENGINE	FAMILY	C	CID	V	T	AC	FT	CAT	IRPM	IRPMS	IGN	IGMS	INRT	MLHP	L	DB	MB	BARON	TEST
0063	1370	62080	80	CADI	ELDO	06J0RCZ		8	350	0	1	1	21	4	600	600	+10	+10	4000	9.7	3	77	64	29.84	1
0064	1369	62080	80	CADI	SEVI	06J0RCZ		8	350	0	1	1	21	4	630	600	+10	+10	4500	9.7	3	77	64	29.79	1
0065	1384	62560	80	FORD	FAIR	3.300		6	200	1	1	1	14	4	600	600	+08	+10	3000	10.8	3	75	64	29.87	1
0066	1375	62180	80	FORD	STAM	3.300		6	200	1	1	1	14	4	600	600	+10	+10	3000	11.3	3	76	64	29.87	1
0066	1405	71880	80	FORD	STAM	3.300		6	200	1	1	1	14	4	600	600	+10	+10	3000	11.3	3	72	63	29.97	2
0067	1388	62560	80	CADI	SEVI	06T4RCZ		8	348	4	1	1	21	4	575	575	+16	+18	4500	11.3	3	75	62	29.82	1
0068	1368	62080	80	CADI	SEVI	06J0RCZ		8	350	0	1	1	21	4	600	600	+10	+10	4500	9.7	3	75	64	29.89	1
0069	1398	62080	80	CADI	SEVI	06J0RCZ		8	350	0	1	1	21	4	600	600	+08	+10	4500	9.7	3	73	64	29.90	1
0070	1393	62780	80	CADI	ELDO	06J0RCZ		8	350	0	1	1	21	4	610	550	+04	+04	4000	9.7	3	75	64	29.84	1
0071	1394	62780	80	CHEV	CAMA	01V4NCRZ		8	305	4	1	1	21	2	610	550	+04	+04	4000	10.2	3	79	67	29.84	1
0072	1395	62780	80	LINC	MRA6	5.0MAXC		8	331	2	1	1	20	4	600	550	+28	+30	4500	13.1	3	78	67	29.78	1
0073	1396	62780	80	DATS	B10	L24/28C		6	146	0	1	1	16	2	575	650	+10	+10	3000	10.2	3	74	66	29.80	1
0074	1406	7280	80	OLDS	CUTL	01V4NCRZ		8	305	4	1	1	18	4	600	550	+04	+04	3500	11.6	3	70	61	30.05	1
0075	1412	7380	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	650	700	+15	+16	4000	10.4	3	74	64	29.94	1
0076	1407	7280	80	CHEV	CHEV	01M2PC		4	98	2	1	2	13	2	750	800	+18	+18	2500	9.2	3	73	63	30.82	2
0076	1457	72380	80	CHEV	CHEV	01M2PC		4	98	2	1	2	13	2	750	800	+18	+18	2500	9.2	3	73	63	30.82	2
0077	1413	7380	80	OLDS	CUTL	01V4NCRZ		8	305	4	1	1	18	2	630	550	+04	+04	3500	11.6	3	77	67	29.89	1
0078	1425	7980	80	OLDS	CUTL	01V4NCRZ		8	305	4	1	1	18	2	600	550	+04	+04	3500	11.6	3	74	61	29.84	1
0079	1415	7380	80	OLDS	CUTL	01V4NCRZ		8	305	4	1	1	18	2	600	550	+05	+04	3500	11.6	3	74	65	29.84	1
0080	1428	71080	80	DODG	OMNI	OCB-105-2-CLP		4	105	2	4	2	13	4	1000	900	+10	+10	2500	7.4	3	80	66	29.83	1
0081	1419	7880	80	DATS	280Z	L24/28C		6	168	0	5	1	21	2	850	700	+08	+10	3000	8.9	3	73	63	29.89	1
0082	1426	71080	80	PLYM	HORI	OCB-105-2-CLP		4	105	2	1	1	13	4	950	700	+10	+10	2500	7.8	3	72	61	29.89	1
0083	1418	7880	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	850	700	+16	+16	4000	10.4	3	76	65	29.90	1
0083	1445	71780	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	700	700	+09	+10	2500	7.8	3	73	62	29.91	1
0084	1423	7980	80	PLYM	HORI	OCB-105-2-CLP		4	105	2	1	1	13	4	850	900	+09	+10	2500	7.8	3	72	61	29.87	2
0084	1434	71480	80	PLYM	HORI	OCB-105-2-CLP		4	105	2	1	1	13	4	885	900	+09	+10	2500	7.8	3	72	61	29.87	2
0084	1447	71780	80	PLYM	HORI	OCB-105-2-CLP		4	105	2	1	1	13	4	885	900	+10	+10	2500	7.8	3	73	62	29.76	3
0084	1454	72280	80	PLYM	HORI	OCB-105-2-CLP		4	105	2	1	1	13	4	950	900	+10	+10	2500	7.8	3	76	66	29.78	4
0084	1467	72580	80	PLYM	HORI	OCB-105-2-CLP		4	105	2	1	1	13	4	900	900	+09	+10	2500	7.8	3	75	66	29.72	5
0085	1424	7980	80	CADI	SEVI	06T4RCZ		8	348	4	1	1	21	4	550	575	+18	+18	4500	11.3	3	77	64	29.86	1
0085	1433	71480	80	CADI	SEVI	06T4RCZ		8	348	4	1	1	21	4	625	575	+18	+18	4500	11.3	3	75	64	29.83	2
0085	1448	71880	80	CADI	SEVI	06T4RCZ		8	348	4	1	1	21	4	625	575	+18	+18	4500	11.3	3	73	63	29.81	3
0086	1429	71180	80	CADI	SEVI	06J0RCZ		8	350	0	1	1	21	4	635	600	+09	+10	4500	9.7	3	73	63	29.85	1
0087	1427	71080	80	PLYM	HORI	OCB-105-2-CLP		4	105	2	1	1	13	4	900	900	+08	+10	2500	7.8	3	73	62	29.89	1
0088	1435	71580	80	CADI	SEVI	06J0RCZ		8	350	0	1	1	21	4	575	600	+10	+10	4500	9.7	3	72	62	29.87	1
0089	1438	71580	80	CHRY	LEBA	OCB-225-1-ARP		6	225	1	1	2	18	4	750	750	+12	+12	4000	10.4	3	77	66	29.83	1
0090	1444	71780	80	CADI	SEVI	06T4RCZ		8	348	4	1	1	21	4	600	575	+18	+18	4500	11.3	3	72	63	29.86	1
0091	1439	71580	80	CADI	SEVI	06J0RCZ		8	350	0	1	1	21	4	575	600	+10	+10	4500	9.7	3	73	63	29.87	1
0092	1450	71880	80	CADI	ELDO	06J0RCZ		8	350	0	1	1	21	4	625	600	+10	+10	4000	9.7	3	73	63	29.77	1
0093	1441	71680	80	CHEV	MAL	04E2NCRZ		6	231	2	1	1	18	2	600	550	+15	+15	3500	11.3	3	75	64	29.88	1

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	RUN	DATE	YR	MAKE	MODEL	ENGINE	FAMILY	C	CID	V	T	AC	FT	CAT	IRPM	IRPMS	IGN	IGMS	INRT	RLHP	L	DB	HB	BAROM	TEST
0094	1442	71680	80	CHEV	CAPR	04E2MCRZ		6	231	2	1	1	25	2	675	550	+15	+15	4000	10.3	3	79	67	29.82	1
0095	1446	71780	80	CHEV	MALI	04E2MCRZ		6	231	2	1	1	18	2	650	550	+14	+15	3500	11.3	3	77	66	29.77	1
0095	1461	72480	80	CHEV	MALI	04E2MCRZ		6	231	2	1	1	18	2	650	550	+14	+15	3500	11.3	3	75	65	29.76	2
0096	1449	71880	80	CADI	FLEE	06T4RCZ		8	368	4	1	1	21	4	635	575	+16	+16	4500	11.3	3	73	63	29.81	1
0096	1462	72480	80	CADI	FLEE	06T4RCZ		8	368	4	1	1	21	4	610	575	+16	+16	4500	11.3	3	76	66	29.74	2
0097	1451	72180	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	665	575	+18	+18	4500	11.3	3	72	62	29.82	1
0098	1452	72580	80	CADI	FLEE	06T4RCZ		8	368	4	1	1	21	4	675	575	+18	+18	4500	11.3	3	71	62	29.86	1
0098	1459	72480	80	CADI	FLEE	06T4RCZ		8	368	4	1	1	21	4	560	575	+18	+18	4500	11.3	3	72	63	29.81	6
0098	1466	72580	80	CADI	FLEE	06T4RCZ		8	368	4	1	1	21	4	600	575	+18	+18	4500	11.3	3	76	67	29.73	7
0098	1481	73180	80	CADI	FLEE	06T4RCZ		8	368	4	1	1	21	4	600	575	+18	+18	4500	11.3	3	74	65	29.71	8
0099	1453	72280	80	FORD	LTD	5.8HAXC		8	351	2	1	1	19	4	500	575	+30	+30	4000	11.3	3	75	64	29.81	9
0100	1455	72580	80	FORD	LTD	5.8HAXC		8	351	2	1	1	19	4	610	550	+30	+30	4000	11.3	3	74	63	29.83	1
0101	1456	72280	80	FORD	LTD	5.8HAXC		8	351	2	1	1	19	4	650	550	+30	+30	4000	11.3	3	74	63	29.76	1
0102	1458	72380	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	610	575	+18	+18	4500	11.3	3	74	63	29.80	1
0102	1465	72580	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	610	575	+18	+18	4500	11.3	3	75	66	29.77	6
0102	1470	72880	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	625	575	+18	+18	4500	11.3	3	72	64	29.69	7
0102	1475	73080	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	625	575	+18	+18	4500	11.3	3	75	63	29.79	8
0102	1480	73180	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	600	575	+18	+18	4500	11.3	3	77	66	29.76	9
0103	1463	72480	80	CADI	SEVI	06J0RCZ		8	350	0	1	1	21	4	625	600	+10	+10	4500	9.7	3	74	63	29.76	1
0104	1417	72980	80	VOLK	SCIR	37CL		4	97	0	4	2	11	2	920	940	+03	+03	2250	6.8	3	75	65	29.78	1
0105	1473	72980	80	CADI	SEVI	06J0RCZ		8	350	0	1	1	21	4	575	600	+10	+10	4500	9.7	3	75	65	29.79	1
0106	1486	8180	80	PLYM	VULA	OCB-105-2-CLP		4	105	2	4	1	13	4	575	900	+12	+12	2500	7.9	3	78	68	29.77	1
0107	1476	73080	80	PLYM	VULA	OCB-225-1-ARP		4	225	1	1	2	18	4	740	750	+12	+17	2500	11.8	3	75	65	29.81	1
0108	1495	8180	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	800	700	+15	+16	4000	10.4	3	74	65	29.81	1
0109	1487	8180	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	800	700	+15	+16	4000	10.4	3	74	65	29.81	1
0110	1489	8180	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	800	700	+15	+16	4000	10.4	3	74	65	29.81	1
0110	1498	8180	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	800	700	+15	+16	4000	10.4	3	74	65	29.81	1
0110	1504	81280	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	710	700	+12	+12	4000	10.4	3	78	66	29.69	2
0110	1510	81580	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	725	700	+12	+12	4000	10.4	3	75	67	29.69	3
0111	1494	8180	80	CHRY	CORD	OCB-318-4-AUP		8	318	4	1	1	18	4	750	700	+14	+14	4000	10.4	3	75	64	29.81	4
0112	1496	8180	80	AUDI	5000CL	OCB-318-4-AUP		5	131	0	1	1	20	2	915	925	-03	-03	3000	7.0	3	76	66	29.71	1
0113	1484	8180	80	AUDI	4000CL	OCB-318-4-AUP		4	97	0	4	1	16	2	950	940	+04	+06	2500	7.9	3	79	67	29.83	1
0114	1503	81280	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	625	575	+20	+18	4500	11.3	3	76	67	29.70	1
0114	1505	81380	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	625	575	+20	+18	4500	11.3	3	72	64	29.79	0
0115	1507	81380	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	700	575	+18	+18	4500	11.3	3	74	66	29.74	1
0115	1508	81480	80	CADI	DEVI	06T4RCZ		8	368	4	1	1	21	4	700	575	+18	+18	4500	11.3	3	72	62	29.78	0
0116	1493	81580	80	CADI	COUP	06T4RCZ		8	368	4	1	1	21	4	575	575	+18	+18	4500	11.3	3	72	63	29.74	1

Reproduced from
best available copy.

APPENDIX B - LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

Legend

VEH	Vehicle Number
YR	Model Year
MAKE	Vehicle Make
MODL	Vehicle Model
VIN	Vehicle Identification Number
ODOM	True Mileage
N	Purchased New or Used (1: New; 2: Used)
Y	Yearly Vehicle Miles Traveled (1: 0-5,000; 2: 5,001-10,000; 3: 10,000-15,000; 4: 15,001-20,000; 5: 20,001-30,000; 6: over 30,000)
C	Major City Street Driving (1: all; 2: most; 3: some; 4: little/none)
E	Rural Expressway Driving (1: all; 2: most; 3: some; 4: little/none)
S	Rural Road Driving (1: all; 2: most; 3: some; 4: little/none)
W	Driving to and from Work (1: all; 2: most; 3: some; 4: little/none)
G	Shopping (1: all; 2: most; 3: some; 4: little/none)
B	Business not to and from Work (1: all; 2: most; 3: some; 4: little/none)
V	Social, Vacation, etc. (1: all; 2: most; 3: some; 4: little/none)
TD	Number of Trips made on a Typical Day (one trip is defined as starting the engine, traveling some distance and stopping the engine).
W	Number of Wide Open Throttle accelerations used per week (1: seldom; 2: once or twice; 3: 3-6 times; 4: Everyday)
H	Hard Starting (1: Yes; 2: No)
ST	Stalling (1: Yes; 2: No)
R	Rough Idle (1: Yes; 2: No)
M	Engine Misfiring (1: Yes; 2: No)
A	Poor Acceleration (1: Yes; 2: No)
SB	Stumbling (1: Yes; 2: No)
DS	Dieseling (1: Yes; 2: No)

APPENDIX B - (CONTINUED) LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

LO	Date of Last Oil change (1: too new; 2: due but not done; 3: 0-6 mos; 4: 6-12 mos; 5: over 1 year; 6: don't know)
LT	Date of Last Tune Up (1: too new; 2: due but not done; 3: 0-6 mos; 4: 6-12 mos; 5: over 1 year; 6: don't know)
MAR	Vehicle maintained Manufacturer's Recommended Specifications (1: yes; 2: no; 3: not sure; 4: don't know)
NW	Number of Warranty repairs (1: no warranty; 2: never returned; 3: once; 4: twice; 5: 3 or more; 6: don't know)
PB	Was vehicle returned for Performance Problems (1: yes; 2: no problems)
UL	Unleaded fuel required (1: Yes; 2: No)
L	Number of times Leaded fuel was used (1: not required; 2: never; 3: seldom; 4: occasionally; 5: frequently; 6: don't know)
H2S	Have you or others noticed a Hydrogen Sulfide (rotten eggs) odor in this vehicle's exhaust? (1: never; 2: seldom; 3: occasionally; 4: frequently; 5: don't know)
U	Vehicle operated 50% of the time on unpaved roads, in competitive events, or in hauling or transporting loads heavier than for which it was designed (1: yes; 2: no; 3: don't know)
D	Has vehicle ever had major damage to: (a) cooling system; (b) engine; (c) fuel tank; (d) exhaust system; (e) no damage; (f) don't know (1: yes; 2: no)
MD	Altered engine and/or exhaust components (1: yes; 2: no)

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA ON INDIVIDUAL VEHICLES

VEH	YR	MAKE	MODEL	VIN	QDQH	N	Y	C	E	S	W	Q	B	V	T	D	W	H	S	T	R	M	A	S	B	D	S	L	O	L	T	MAR	NW	PB	UL	L	H	S	U	D	MD		
0001	80	PONT	FIRE	2N87HAL105433	5190.	1	2	3	4	4	3	3	3	4	6	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	5	1	1	2	1	2	22212	2
0002	79	PLYM	VOLA	HL41C9B264324	5766.	1	1	1	4	4	4	4	4	1	4	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22212	2
0003	79	PLYM	VOLA	HL29C9B286115	4523.	1	3	1	4	4	1	4	4	4	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22212	2
0004	80	VOLK	RABB	17A078A4599	1299.	1	2	4	4	4	4	4	4	4	4	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	22212	2
0005	80	CHEV	IMPA	1L69HAC101685	1353.	1	2	3	4	4	4	3	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	22212	2
0006	79	DODG	STAW	NL45C9B260694	8383.	1	3	1	4	4	1	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	6	1	1	1	1	1	1	1	22212	2	
0007	80	CHEV	MONT	12373AR415675	5722.	1	5	4	4	4	4	4	4	4	4	5	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	1	1	1	1	1	1	1	1	22212	2	
0008	79	PLYM	VOLA	HL41C9B292604	3866.	1	2	1	4	4	2	3	4	4	4	1	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	22212	2
0009	80	PLYM	VOLA	HE41CAF145677	7097.	1	3	4	4	4	3	3	4	3	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	22212	2
0010	80	BUIC	SKYH	4S07AA7407737	2028.	1	2	4	4	4	4	3	4	3	4	4	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	22212	2
0011	80	OLDS	CUTL	3R65AAH455B60	5364.	1	5	4	4	4	1	4	4	4	4	10	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	22212	2
0012	80	CHEV	CHET	1B689AA148764	3435.	1	5	3	4	4	3	4	4	4	4	6	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6	6	4	4	6	2	1	1	1	22212	2
0013	80	CHEV	CHET	1B689AA168B57	2899.	1	4	3	4	4	3	3	3	3	3	6	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6	6	4	4	6	2	1	1	1	22212	2
0014	80	FORD	MUST	OR03A10141B	5963.	1	3	1	4	4																																	

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA ON INDIVIDUAL VEHICLES

VEH	YR	MAKE	MODEL	VIN	ODOM	N	Y	C	E	S	W	O	B	V	TD	W	H	ST	R	M	A	SB	DB	LO	LT	MAR	NW	PB	UL	L	H2S	U	D	HD
00041	80	AMC	STAM	AOA085C170931	3865.	1	3	3	4	4	4	3	4	3	6	1	2	1	1	2	2	2	2	3	1	1	3	2	1	2	1	2	22212	2
00042	80	FORD	LTD	OJ650109309	5106.	1	2	1	4	4	2	3	4	4	4	1	2	2	2	2	2	2	3	1	1	3	2	1	2	1	2	22212	2	
00043	80	BUIC	LESA	4N69AAX105065	5938.	1	5	1	4	4	4	4	4	20	1	1	2	2	2	2	2	2	1	1	1	4	2	1	2	1	2	22212	2	
00044	80	FORD	STAM	OK94B120066	2971.	1	3	2	4	4	4	3	4	3	4	1	2	2	2	2	2	2	1	1	1	2	2	1	2	1	2	22212	2	
00045	80	OLDS	CUTL	3M47HAR434871	3488.	1	4	4	4	4	4	1	4	4	1	2	1	2	1	2	1	2	1	1	1	1	2	3	2	2	22212	2		
00046	80	FORD	MUST	OR03B124238	1992.	1	4	2	4	3	3	3	3	2	1	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	22212	2		
00047	80	DATS	B10	KHL0810020305	6861.	1	4	3	4	4	3	4	3	3	6	4	2	2	2	2	2	2	3	1	1	2	2	1	2	3	2	22212	2	
00048	80	FORD	STAM	OK94B133753	1983.	1	2	1	4	4	1	4	4	4	6	2	2	2	2	2	2	2	2	1	1	1	2	2	1	2	22212	2		
00049	80	BUIC	CENT	4L69AAH170590	3793.	1	4	1	4	4	1	4	4	4	1	2	2	2	2	2	2	2	1	1	1	1	3	2	1	2	22212	2		
00050	80	FORD	FAIR	OK92B146490	2207.	1	2	3	4	4	3	4	3	3	2	1	1	2	2	2	2	2	2	1	1	1	3	2	1	2	22212	2		
00051	80	FORD	LTD	OJ650110600	3251.	1	3	1	4	4	4	3	4	3	6	1	1	2	1	2	2	2	2	1	1	1	4	2	1	2	22212	2		
00052	80	OLDS	CUTL	3R47HAR425452	2278.	1	3	3	4	4	3	4	3	4	1	2	2	2	2	2	2	2	2	1	1	3	2	1	2	22212	2			
00053	80	FORD	FAIR	OK93B151083	3091.	1	3	1	4	4	1	4	4	4	4	2	2	2	1	2	2	2	2	1	1	3	2	1	2	22212	2			
00054	80	FORD	MUST	OR05B126742	3779.	1	3	3	4	4	2	3	4	4	4	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	22212	2		
00055	80	OLDS	CUTL	3M69HAM430925	3428.	1	2	3	4	4	1	4	4	4	2	1	2	2	2	2	2	2	1	3	1	1	4	2	1	2	22212	2		
00056	80	CADI	SEVI	6569BAE687159	3898.	1	2	3	4	4	3	4	3	4	2	1	2	2	2	2	2	2	2	6	6	4	6	2	1	6	5	3	22212	2
00057	80	LINC	CONT	OY820617182	10862.	1	4	4	4	2	4	3	4	4	1	2	2	2	2	2	2	2	2	3	3	1	3	2	1	2	22212	2		

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	YR	MAKE	MODEL	VIN	ODOM	N	Y	C	E	S	M	O	B	V	TD	H	W	ST	R	M	A	SB	DS	LD	LT	MAR	NW	PB	UL	L	H2S	U	D	MD	
0081	80	DATS	280Z	HS130-192748	10247.	1	4	3	4	1	4	4	4	4	2	4	2	2	2	2	2	2	2	2	3	1	2	4	1	1	2	2	2212	2	
0082	80	PLYM	HORI	ML24AAD236104	5225.	1	4	3	4	4	3	3	4	4	6	3	2	2	2	2	2	2	2	2	1	1	1	3	2	1	2	2	2212	2	
0083	80	CHRY	CURD	SP22HAR17373	1499.	1	2	3	4	4	3	4	3	4	3	2	1	2	1	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0084	80	PLYM	HORI	ML44AAD164994	14423.	1	5	3	4	4	3	3	4	4	1	2	1	2	1	1	1	2	2	1	3	3	5	1	5	1	2	2	2212	2	
0085	80	CADI	DEVI	6D476AC352836	23863.	1	6	4	4	4	4	1	4	4	8	4	1	2	2	2	2	2	2	1	3	3	4	4	2	1	2	2	2212	2	
0086	80	CADI	SEVI	6S69BAE673664	14913.	1	5	4	4	4	4	1	4	4	6	4	2	2	2	2	2	2	2	2	3	2	2	3	2	1	2	2	2212	2	
0087	80	PLYM	HORI	ML24AAD2379824	2940.	1	2	4	4	1	4	4	4	4	4	4	2	2	1	2	2	2	2	2	1	1	1	3	2	1	2	2	2212	2	
0088	80	CADI	SEVI	6S69BAE678230	9723.	1	4	1	4	4	1	4	4	4	4	4	2	1	2	2	1	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0089	80	CHRY	LEBA	FH22CAQ170816	1180.	1	3	1	4	1	4	4	4	4	4	1	1	2	1	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0090	80	CADI	DEVI	6D476A9104929	15745.	1	5	1	4	4	4	1	4	1	4	6	1	2	2	2	2	2	2	2	6	6	4	4	2	1	2	2	2212	2	
0091	80	CADI	SEVI	6S69BAE673051	19331.	1	5	1	4	4	4	4	4	4	4	1	2	2	2	2	2	2	2	2	6	6	4	4	2	1	2	2	2212	2	
0092	80	CADI	ELDD	6L578AE607984	3418.	1	2	3	4	4	3	4	3	4	3	2	1	1	1	2	2	2	2	2	1	1	1	5	2	1	2	2	2212	2	
0093	80	CHEV	MAL1	1W19AAR433385	4508.	1	4	4	4	4	4	4	4	4	4	4	2	2	2	2	2	2	2	2	6	4	4	2	2	1	3	2	2212	2	
0094	80	CHEV	CAPR	1N69AAC130161	4846.	1	4	4	4	3	4	4	4	4	4	6	4	2	2	2	2	2	2	2	6	4	4	6	2	1	6	5	3	22212	2
0095	80	CHEV	MAL1	1W19AAR428763	7861.	1	4	4	4	3	4	4	4	4	4	4	2	2	2	2	2	2	2	2	6	4	4	6	2	1	6	5	3	22212	2
0096	80	CADI	FLEE	6B696A9160367	4974.	1	3	3	4	4	3	4	3	4	3	2	1	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0097	80	CADI	DEVI	OD696AC355296	5954.	1	3	2	4	4	2	4	3	4	8	4	1	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0098	80	CADI	FLEE	6B696A91543R2	4310.	1	2	3	4	4	4	4	4	4	2	1	2	2	2	2	2	2	2	1	1	1	5	2	1	2	2	2212	2		
0099	80	FORD	LTD	OJ63Q112028	1344.	1	2	1	4	4	1	4	4	4	2	2	2	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0100	80	FORD	LTD	OJ63G112036	3032.	1	2	2	4	4	3	4	3	4	4	1	2	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0101	80	FORD	LTD	OJ62G100205	3051.	1	2	4	4	1	4	4	4	4	2	1	2	2	2	2	2	2	2	2	1	1	1	3	2	1	2	2	2212	2	
0102	80	CADI	DEVI	6D696AC356009	3991.	1	1	2	4	4	1	4	4	4	2	1	2	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0103	80	CADI	SEVI	6S69BAE671715	9999.	1	3	4	4	4	4	1	4	4	6	1	2	2	2	2	2	2	2	2	3	3	1	3	1	1	2	2	2212	2	
0104	80	VOLK	SCIR	93A0035709	7220.	1	3	3	4	4	3	4	4	4	4	4	3	1	2	2	2	2	2	2	3	3	1	3	1	1	2	2	2212	2	
0105	80	CADI	SEVI	6S69BAE680711	3876.	1	2	2	4	4	3	4	3	4	2	1	2	2	2	2	2	2	2	2	1	1	1	5	2	1	2	2	2212	2	
0106	80	DODG	QMN1	ZL24AAD179848	5468.	1	3	3	4	3	3	4	3	4	4	2	2	2	2	2	2	2	2	2	1	1	5	2	1	3	2	2212	2		
0107	80	PLYM	VOLA	HE29CAB126344	7732.	1	3	1	4	4	2	4	3	3	8	2	2	2	2	2	2	2	2	2	2	1	1	4	2	1	2	2	2212	2	
0108	80	VOLK	SCIR	93A0012620	7587.	1	3	3	4	3	4	4	4	4	4	2	2	2	2	2	2	2	2	2	3	1	1	4	2	1	2	2	2212	2	
0109	80	CHRY	CURD	SH22HAR133185	4886.	1	3	4	4	4	3	4	3	4	6	1	2	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0110	80	CHRY	CORD	SH22HAR128358	11188.	1	3	4	4	2	3	4	4	4	2	1	2	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0111	80	DODG	MTR4	VH22HAR140298	5600.	1	2	1	4	1	4	4	4	4	3	1	2	2	2	2	2	2	2	2	3	1	1	5	2	1	2	2	2212	2	
0112	80	AUDI	5000	43A0077293	9787.	1	5	3	4	4	3	4	2	4	10	4	2	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0113	80	AUDI	4000	81A0005601	8340.	1	3	3	4	4	2	3	4	4	8	4	2	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0114	80	CADI	DEVI	6D476AC350419	4429.	1	2	3	4	4	3	4	2	4	2	1	2	2	2	2	2	2	2	2	3	1	1	3	2	1	2	2	2212	2	
0115	80	CADI	DEVI	6B696A9156892	7637.	1	3	3	4	1	4	4	4	4	4	1	1	1	1	2	2	2	2	2	3	1	1	5	2	1	2	2	2212	2	
0116	80	CADI	COUP	6D476AC354852	7687.	1	3	4	4	4	4	3	3	4	4	1	2	2	2	2	2	2	2	2	3	1	1	4	2	1	2	2	2212	2	

Reproduced from
best available copy.

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

Legend

<u>PHRASE</u>	<u>EXPLANATION</u>
LIMITER CAP OK	Limiter cap correctly installed
LIMITER CAP MIS	Limiter cap missing
LIMITER CAP BRKN	Limiter cap broken
LIMITER CAP NA	Limiter cap N-A (e.g., fuel inj.)
MIXTURE ADJ PLUG OK	Sealed carb adjustment plug OK
MIXTURE ADJ PLUG MIS	Sealed carb adjustment plug missing
TIMG OFF <u>+X</u>	Timing off <u>+x</u> degrees
IRPM OFF <u>+XXX</u>	Idle RPM off <u>+xxx</u> RPM
CHOKE OFF XNR (OR NL)	Choke off by x notches on rich side (or lean)

<u>ACRONYM</u>	<u>EXPLANATION</u>
BRKN	Broken
DEF	Defective
PLGD	Plugged
RERTD	Rerouted
DISCNCTD	Disconnected
CNCTD	Connected
DIST	Distributor
VAC	Vacuum
ADV	Advance
VLV	Valve
SOL	Solenoid
FLTR	Filter
BPT	Back Pressure Transducer
SNSR	Sensor
CNSTR	Canister

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR; SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP; SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD; SN=8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0001	80	PONT	FIRE	305	1	COLD TRANS	5.96	158.33	591.2	0.40	10.33
						COLD STAB	4.11	135.04	592.9	0.18	10.85
						HOT TRANS	4.42	130.45	523.9	0.34	11.95
						1975 FTP	4.58	138.58	573.7	0.27	11.01

COMMENTS: MIXTURE ADJ PLUG OK, ECU CIRCUIT FUSE BURNT BY DEF IDLE SOL.

0001	80	PONT	FIRE	305	2	COLD TRANS	2.55	30.42	775.2	0.76	10.68
						COLD STAB	0.08	1.30	743.2	0.10	11.90
						HOT TRANS	0.52	4.07	663.3	0.52	13.22
						1975 FTP	0.71	8.05	728.0	0.35	11.95

COMMENTS: REPLACE ECU CIRCUIT FUSE, AS PER OH REP.

0001	80	PONT	FIRE	305	3	COLD TRANS	2.11	20.39	812.1	1.09	10.43
						COLD STAB	0.11	1.07	773.6	0.21	11.44
						HOT TRANS	0.33	5.38	690.0	0.49	12.69
						1975 FTP	0.58	6.22	758.7	0.47	11.52

COMMENTS: RERTD NUMBER ONE SHORTED SPARK PLUG WIRE, REPLACE DEF IDLE SOL.
AS PER OH REP.

9002	79	PLYM	VOLA	225	1	COLD TRANS	1.65	36.71	626.3	1.48	12.88
						COLD STAB	0.30	0.74	515.4	0.98	17.15
						HOT TRANS	0.44	5.91	523.4	1.61	16.62
						1975 FTP	0.62	9.55	540.4	1.26	15.92

COMMENTS: MIXTURE ADJ PLUG OK.

9003	79	PLYM	VOLA	225	1	COLD TRANS	2.29	49.67	679.4	0.56	11.61
						COLD STAB	0.24	8.34	630.2	0.36	13.78
						HOT TRANS	0.92	34.18	583.8	0.41	13.86
						1975 FTP	0.85	23.89	627.7	0.41	13.29

COMMENTS: LIMITER CAP OK, DIFFERENCE FROM VACUUM BREAK SPECIFICATION
0.061 RICH AND ABOVE. VACUUM REGULATOR HOSE OFF AT CARB.

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR; SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP; SN=6, ECH DISCNCTD; SN=7, O2 SNR DISCNCTD; SN=8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
9003	79	PLYM	VOLA	225	2	COLD TRANS	0.83	19.94	640.7	1.44	13.16
IHC, PPM HEXANE						COLD STAB	0.12	0.92	523.4	0.91	16.90
ICD(ACTUAL), PCT 0.01						HOT TRANS	0.75	10.78	530.7	1.29	16.14
						1975 FTP	0.44	7.53	549.5	1.12	15.77
COMMENTS: INSTALL VACUUM REGULATOR HOSE AT CARB, ADJUST VACUUM BREAK TO SPEC											
0004	80	VOLK	RABB	97	1	COLD TRANS	0.57	9.08	420.3	0.23	20.34
IHC, PPM HEXANE						COLD STAB	0.11	2.51	484.8	0.16	18.15
ICD(ACTUAL), PCT 2.80						HOT TRANS	0.14	2.48	369.0	0.14	23.78
						1975 FTP	0.21	3.85	439.9	0.17	19.87
COMMENTS: LIMITER CAP NA											
0005	80	CHEV	INPA	305	1	COLD TRANS	6.11	201.39	482.7	0.46	10.84
IHC, PPM HEXANE						COLD STAB	4.56	200.92	491.2	0.22	10.80
ICD(ACTUAL), PCT 2.60						HOT TRANS	3.42	129.78	432.6	0.40	13.71
						1975 FTP	4.57	181.61	473.5	0.32	11.48
COMMENTS: MIXTURE ADJ PLUG OK, IRPM +305, ECU GROUND WIRE NUT LOOSE MAKING POOR CONTACT.											
0005	80	CHEV	INPA	305	2	COLD TRANS	0.72	19.33	632.8	1.41	13.34
IHC, PPM HEXANE						COLD STAB	0.05	1.61	648.8	0.76	13.62
ICD(ACTUAL), PCT 0.01						HOT TRANS	0.19	6.21	549.9	1.42	15.84
						1975 FTP	0.23	6.51	618.5	1.07	14.10
COMMENTS: TIGHTEN ECU GROUND WIRE NUT.											
0005	80	CHEV	INPA	305	3	COLD TRANS	0.89	20.67	643.0	1.43	13.09
IHC, PPM HEXANE						COLD STAB	0.05	0.90	663.2	0.64	13.35
ICD(ACTUAL), PCT 0.01						HOT TRANS	0.13	4.15	545.6	1.39	16.06
						1975 FTP	0.24	5.85	627.0	1.01	13.93
COMMENTS: TEN MILES FREEWAY MILEAGE ACCUMULATION AS PER GM REP.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR; SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP; SN=6, ECH DISCNCTD; SN=7, O2 SNR DISCNCTD; SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
9006	79	DODG	STAW	225	1	COLD TRANS	1.31	16.16	656.7	2.16	12.93
		IHC, PPM HEXANE	10			COLD STAB	0.12	0.41	554.3	1.02	15.98
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.45	3.43	578.7	1.72	15.16
						1975 FTP	0.46	4.47	582.0	1.44	15.03

COMMENTS: MIXTURE ADJ PLUG OK, IRPM +150.
NO FAST IDLE DUE TO BENT ADJUSTING SCREW BRACKET.

0007	80	CHEV	MONT	231	1	COLD TRANS	1.69	20.50	617.5	1.50	13.55
		IHC, PPM HEXANE	80			COLD STAB	0.25	1.74	553.7	0.27	15.93
		ICD(ACTUAL), PCT 0.10				HOT TRANS	0.46	6.02	507.7	0.93	17.12
						1975 FTP	0.60	6.77	554.3	0.70	15.66

COMMENTS: MIXTURE ADJ PLUG OK, IRPM -150.

9008	79	PLYM	VOLA	225	1	COLD TRANS	0.72	17.66	645.7	1.28	13.14
		IHC, PPM HEXANE	20			COLD STAB	0.39	4.14	596.2	0.52	14.70
		ICD(ACTUAL), PCT 0.02				HOT TRANS	0.64	4.87	563.0	1.17	15.50
						1975 FTP	0.53	7.12	597.3	0.86	14.55

COMMENTS: MIXTURE ADJ PLUG OK, IRPM +160, O2 SNR NO VOLTAGE.

9008	79	PLYM	VOLA	225	2	COLD TRANS	0.99	23.65	642.2	1.36	13.00
		IHC, PPM HEXANE	10			COLD STAB	0.18	1.30	544.8	0.65	16.21
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.42	8.30	550.9	1.22	15.70
						1975 FTP	0.42	7.81	566.5	0.95	15.30

COMMENTS: REPLACE O2 SNR.

0009	80	PLYM	VOLA	225	1	COLD TRANS	2.80	43.04	622.7	0.55	12.69
		IHC, PPM HEXANE	30			COLD STAB	0.40	14.30	603.7	0.32	14.15
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.89	26.96	555.8	0.43	14.77
						1975 FTP	1.03	23.67	594.6	0.40	13.98

COMMENTS: MIXTURE ADJ PLUG OK, IRPM +170, VAC HOSE DISCNCTD AT MIXTURE CONTROL
DEVICE AT CARB. FUEL RETURN HOSE FROM FUEL FLTR KINKED AND CRACKED.
CANISTER SIGNAL HOSE DISCNCTD AT CNSTR VAC SOL.
CNSTR VAC SOL OUTLET NIPPLE BRKN.

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SENS; SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP, SN=6, ECM DISCNCTD; SN=7, O2 SENS DISCNCTD; SN=8, BATT DISCNCTD TO MIN, O2 SENS DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0009	80	PLYM	VOLA	225	2	COLD TRANS COLD STAB HOT TRANS 1975 FTP	2.57 0.57 1.62 1.27	54.15 9.74 30.70 24.60	511.6 503.7 459.5 493.2	0.83 0.47 0.57 0.57	14.67 17.04 17.31 16.56
COMMENTS: MIXTURE CONTROL VAC HOSE CONNECTED AT CARB.											
0009	80	PLYM	VOLA	225	3	COLD TRANS COLD STAB HOT TRANS 1975 FTP	1.20 0.62 1.33 0.94	25.35 13.76 24.93 19.19	576.4 535.4 494.1 532.5	1.09 0.57 0.92 0.77	14.31 15.88 16.51 15.69
COMMENTS: CANISTER SIGNAL VLV REPLACED.											
0009	80	PLYM	VOLA	225	4	COLD TRANS COLD STAB HOT TRANS 1975 FTP	1.26 0.72 1.01 0.91	21.70 18.64 27.08 21.57	562.6 529.9 479.8 523.0	0.97 0.52 0.79 0.69	14.78 15.81 16.89 15.86
COMMENTS: CORRECT VAC LEAK AT AMPLIFIER, VOLTAGE REGULATOR DEF. REPLACED.											
0009	80	PLYM	VOLA	225	5	COLD TRANS COLD STAB HOT TRANS 1975 FTP	1.53 0.67 0.59 0.82	22.01 11.07 8.19 12.54	559.2 497.1 478.3 504.8	1.21 0.49 0.99 0.77	14.83 17.18 18.00 16.84
COMMENTS: REPLACE COMPUTER, ADJ CARB IDLE MIXTURE.											
0010	80	BUIC	SKYN	231	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.96 0.07 0.22 0.30	18.36 2.25 7.91 7.11	559.7 499.4 471.1 504.1	0.85 0.49 0.57 0.59	15.00 17.64 18.33 17.19
COMMENTS: MIXTURE ADJ PLUG OK											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE, SN=3, REPLACE O2 SNBR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNBR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0011	80	OLDS	CUTL	231	1	COLD TRANS	0.90	25.57	578.1	1.86	14.29
						COLD STAB	0.04	1.07	534.5	0.94	16.55
						HOT TRANS	0.22	4.54	508.2	0.96	17.20
						1975 FTP	0.27	7.06	536.3	1.13	16.19
COMMENTS: MIXTURE ADJ PLUG OK, IRPM +125, TIMG-3.											
0011	80	OLDS	CUTL	231	2	COLD TRANS	1.06	24.60	550.9	1.98	14.97
						COLD STAB	0.08	3.96	492.8	0.82	17.78
						HOT TRANS	0.15	6.07	455.6	0.84	19.06
						1975 FTP	0.30	8.79	494.6	1.07	17.43
COMMENTS: ADJ IRPM.											
0012	80	CHEV	CHET	98	1	COLD TRANS	0.70	9.61	434.2	1.12	19.66
						COLD STAB	0.03	1.33	387.5	0.73	22.78
						HOT TRANS	0.16	2.03	386.7	0.85	22.73
						1975 FTP	0.20	3.23	396.9	0.84	22.05
COMMENTS: MIXTURE ADJ PLUG OK											
0013	80	CHEV	CHET	98	1	COLD TRANS	0.82	19.94	420.3	0.69	19.54
						COLD STAB	0.21	4.42	376.6	0.04	23.10
						HOT TRANS	0.37	12.34	369.4	0.17	22.76
						1975 FTP	0.38	9.78	383.6	0.21	22.18
COMMENTS: MIXTURE ADJ PLUG OK											
0014	80	FORD	MUST	140	1	COLD TRANS	1.19	23.01	477.0	1.31	17.17
						COLD STAB	0.26	1.05	426.1	0.92	20.71
						HOT TRANS	0.51	3.54	391.3	1.44	22.27
						1975 FTP	0.52	6.25	427.1	1.14	20.24
COMMENTS: MIXTURE ADJ PLUG OK, TIMG +5, DEF ECU READS CONSTANT 2 INCH VAC.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABILITIES; SN=3, REPLACE O2 SENSOR;
SN=4, AFTER CORR. OF OTHER DISABILITIES OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCONNECTED; SN=7, O2 SENSOR DISCONNECTED;
SN=8, BATT DISCONNECTED 10 MIN. O2 SENSOR DISCONNECTED; SN=9, CTS DISCONNECTED; SN=10, TPS DISCONNECTED

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0015	80	CHEV	CHEV	98	1	COLD TRANS	0.74	14.04	415.2	0.78	20.04
						COLD STAB	0.03	1.46	378.4	0.30	23.31
						HOT TRANS	0.15	8.44	367.2	0.30	23.30
						1975 FTP	0.21	6.37	382.9	0.40	22.55
COMMENTS: MIXTURE ADJ PLUG OK, IRPM +140.											
0016	80	CHEV	MONT	305	1	COLD TRANS	0.70	14.15	677.4	1.23	12.65
						COLD STAB	0.06	2.23	648.2	0.45	13.62
						HOT TRANS	0.13	3.40	557.6	1.11	19.75
						1975 FTP	0.21	5.00	629.5	0.79	13.91
COMMENTS: MIXTURE ADJ PLUG OK											
0017	80	OLDS	CUTL	231	1	COLD TRANS	1.06	27.16	590.1	1.80	13.95
						COLD STAB	0.07	3.35	544.6	0.65	16.13
						HOT TRANS	0.40	13.62	490.3	0.77	17.30
						1975 FTP	0.36	11.05	539.1	0.92	15.92
COMMENTS: MIXTURE ADJ PLUG OK, IRPM +170.											
0018	80	OLDS	STAR	151	1	COLD TRANS	0.74	22.12	475.3	1.08	17.32
						COLD STAB	0.03	1.51	474.3	0.49	18.61
						HOT TRANS	0.16	8.91	415.4	0.66	20.64
						1975 FTP	0.22	7.77	458.5	0.66	18.83
COMMENTS: MIXTURE ADJ PLUG OK											
0019	80	CHEV	CHEV	98	1	COLD TRANS	0.50	14.51	429.8	0.51	19.54
						COLD STAB	0.06	3.71	400.3	0.07	21.85
						HOT TRANS	0.14	6.46	385.2	0.16	22.42
						1975 FTP	0.17	6.68	402.2	0.19	21.48
COMMENTS: MIXTURE ADJ PLUG OK, ENGINE DECAL MIS.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SENSOR;

SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;

SN-6, ECH DISCNCTD; SN-7, O2 SENSOR DISCNCTD;

SN-8, BATT DISCNCTD 10 MIN. O2 SENSOR DISCNCTD; SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0020	80	BUIC	CENT	303	1	COLD TRANS	0.95	12.43	450.1	0.94	13.19
						COLD STAB	0.04	1.74	404.5	0.36	14.41
						HOT TRANS	0.22	1.73	913.0	0.33	17.12
						1975 FTP	0.29	3.99	589.5	0.52	14.88

COMMENTS: MIXTURE ADJ PLUG OK, PCV VENT HOSE DISCNCTD.

0021	80	BUIC	LESA	231	1	COLD TRANS	0.69	7.58	598.8	0.87	14.48
						COLD STAB	0.04	0.97	528.8	0.35	16.73
						HOT TRANS	0.17	1.59	487.4	0.55	18.10
						1975 FTP	0.21	2.50	531.9	0.51	16.54

COMMENTS: MIXTURE ADJ PLUG OK, DEF ELECTRONIC DIST
TIMO WIRE CONNECTOR COMES APART TO EASILY.

0022	80	CHEV	MONT	231	1	COLD TRANS	1.20	10.78	617.1	1.73	13.91
						COLD STAB	0.18	0.26	549.9	0.32	15.55
						HOT TRANS	0.42	2.40	507.7	0.91	17.31
						1975 FTP	0.46	3.01	562.7	0.77	15.60

COMMENTS: MIXTURE ADJ PLUG OK

0023	80	CADI	SEVI	350	1	COLD TRANS	0.94	14.99	721.9	1.22	11.87
						COLD STAB	0.18	0.03	807.0	0.43	10.99
						HOT TRANS	0.27	0.42	681.3	0.69	13.00
						1975 FTP	0.36	3.21	755.1	0.72	11.66

COMMENTS: LIMITER CAP NA

0024	80	BUIC	REGA	231	1	COLD TRANS	0.83	18.33	543.6	1.55	15.43
						COLD STAB	0.09	2.74	479.0	0.47	18.36
						HOT TRANS	0.35	4.04	448.7	0.53	19.46
						1975 FTP	0.32	6.30	484.0	0.71	17.93

COMMENTS: MIXTURE ADJ PLUG OK

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLE, SN=3, REPLACE O2 SNR, SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN=5, AFTER MAJOR TUNE-UP, SN=6, ECM DISCNCTD, SN=7, O2 SNR DISCNCTD, SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0025	80	BUIC	SKYH	231	1	COLD TRANS	1.00	19.47	569.0	0.43	14.72
						COLD STAB	0.15	4.48	492.3	0.32	17.76
						HOT TRANS	0.41	5.85	455.0	0.23	19.07
						1975 FTP	0.39	7.94	497.9	0.32	17.35

COMMENTS: MIXTURE ADJ PLUG OK

0026	80	CHEV	CHET	98	1	COLD TRANS	0.58	8.33	419.4	0.57	20.43
						COLD STAB	0.09	1.59	393.2	0.09	22.30
						HOT TRANS	0.19	3.26	381.0	0.22	22.95
						1975 FTP	0.22	3.43	396.3	0.22	22.06

COMMENTS: MIXTURE ADJ PLUG OK

0027	80	FORD	LTD	351	1	COLD TRANS	1.36	23.29	636.6	0.48	13.10
						COLD STAB	0.16	0.08	615.2	0.46	14.41
						HOT TRANS	0.32	4.48	541.2	0.42	16.16
						1975 FTP	0.45	6.06	599.4	0.45	14.54

COMMENTS: MIXTURE ADJ PLUG OK

0028	80	BUIC	CENT	231	1	COLD TRANS	0.57	6.16	535.1	2.33	16.24
						COLD STAB	0.04	0.46	494.4	0.79	17.92
						HOT TRANS	0.15	1.00	480.0	0.67	18.41
						1975 FTP	0.18	1.78	498.8	1.05	17.67

COMMENTS: MIXTURE ADJ PLUG OK

0029	80	CHEV	CHET	98	1	COLD TRANS	0.51	8.61	438.1	0.65	19.58
						COLD STAB	0.03	1.02	410.4	0.13	21.54
						HOT TRANS	0.16	4.18	383.2	0.25	22.74
						1975 FTP	0.17	3.44	408.7	0.27	21.41

COMMENTS: MIXTURE ADJ PLUG OK

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AB RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLER, SN=3, REPLACE O2 SNBR;
SN=4, AFTER CORR. OF OTHER DISABLER OR MALADJ, SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNBR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0030	80	DATS	B10	146	1	COLD TRANS	0.87	7.58	501.7	0.40	17.19
						COLD STAB	0.06	0.54	436.0	0.14	20.31
						HOT TRANS	0.23	2.67	416.9	0.19	21.04
						1975 FTP	0.27	2.57	444.3	0.20	19.76
IHC, PPM HEXANE 70											
ICD(ACTUAL), PCT 0.03											
COMMENTS: LIMITER CAP NA.											
0031	80	CHEV	CHET	98	1	COLD TRANS	0.54	12.17	423.9	0.35	19.96
						COLD STAB	0.03	0.59	398.2	0.03	22.23
						HOT TRANS	0.14	3.48	383.4	0.14	22.80
						1975 FTP	0.17	3.76	399.4	0.13	21.87
IHC, PPM HEXANE 10											
ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK.											
0032	80	CHEV	CHET	98	1	COLD TRANS	0.37	1.36	451.2	3.81	19.31
						COLD STAB	0.06	0.59	399.3	2.17	22.17
						HOT TRANS	0.06	0.22	369.7	3.89	23.97
						1975 FTP	0.12	0.69	401.9	2.98	22.00
IHC, PPM HEXANE 10											
ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK, EGR VLV VAC HOSE DISCNCTD.											
0032	80	CHEV	CHET	98	2	COLD TRANS	1.17	40.56	379.6	0.37	19.85
						COLD STAB	0.74	20.20	355.1	0.04	22.81
						HOT TRANS	0.46	15.13	334.7	0.22	24.66
						1975 FTP	0.75	23.01	354.5	0.15	22.58
IHC, PPM HEXANE 2											
ICD(ACTUAL), PCT 0.01											
COMMENTS: CONNECT EGR VAC HOSE.											
0032	80	CHEV	CHET	98	3	COLD TRANS	0.73	7.66	421.4	0.65	20.37
						COLD STAB	0.03	0.00	380.4	0.70	23.33
						HOT TRANS	0.09	3.06	364.9	0.45	23.99
						1975 FTP	0.19	2.41	384.6	0.62	22.82
IHC, PPM HEXANE 10											
ICD(ACTUAL), PCT 0.01											
COMMENTS: REPLACE CARB.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLES; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0033	80	CHEV	CHET	98	1	COLD TRANS	0.60	12.56	378.8	0.54	22.17
						COLD STAB	0.03	0.23	388.7	0.12	22.80
						HOT TRANS	0.15	1.95	329.9	0.19	26.62
						1975 FTP	0.18	3.24	370.6	0.21	23.59
IHC, PPM HEXANE 5											
ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK.											
0034	80	BUIC	CENT	231	1	COLD TRANS	1.02	13.94	510.9	2.78	16.58
						COLD STAB	0.08	2.84	472.0	0.63	18.62
						HOT TRANS	0.20	4.23	445.5	0.55	19.65
						1975 FTP	0.31	5.42	472.5	1.05	18.41
IHC, PPM HEXANE 15											
ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK.											
0038	80	CHEV	CHET	98	1	COLD TRANS	0.58	12.12	349.5	0.22	23.96
						COLD STAB	0.25	5.04	379.8	0.02	22.88
						HOT TRANS	0.33	3.70	329.4	0.04	26.39
						1975 FTP	0.34	6.13	359.8	0.07	23.95
IHC, PPM HEXANE 5											
ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK.											
0036	80	MERC	STAW	351	1	COLD TRANS	0.90	28.52	724.9	0.42	11.49
						COLD STAB	0.17	0.41	677.4	0.46	13.08
						HOT TRANS	0.26	4.96	603.0	0.94	14.51
						1975 FTP	0.35	7.44	666.9	0.47	13.06
IHC, PPM HEXANE 3											
ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK.											
0037	80	MERC	MARG	351	1	COLD TRANS	1.07	34.43	661.3	0.53	12.35
						COLD STAB	0.29	0.38	620.7	0.47	14.26
						HOT TRANS	0.31	8.89	546.2	0.44	15.82
						1975 FTP	0.46	9.71	608.7	0.47	14.19
IHC, PPM HEXANE 40											
ICD(ACTUAL), PCT 0.20											
COMMENTS: MIXTURE ADJ PLUG OK. O2 SNR VOLTAGE LOWER THAN SPEC.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISABILITIES, SN-3, REPLACE O2 SENSORS,
SN-4, AFTER CORR. OF OTHER DISABILITIES OR MALADJ, SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECH DISCNCTD, SN-7, O2 SENS DISCNCTD,
SN-8, BATT DISCNCTD 10 MIN, O2 SENS DISCNCTD, SN-9, CTS DISCNCTD, SN-10, TFS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NDXC	FUEL ECON
0038	80	OLDS	CUTL	305	1	COLD TRANS	0.82	13.48	675.2	1.11	12.70
						COLD STAB	0.09	1.13	667.1	0.29	13.27
						HOT TRANS	0.14	1.31	559.7	0.60	15.79
						1975 FTP	0.23	3.72	639.4	0.54	13.74

COMMENTS: MIXTURE ADJ PLUG OK.

0039	80	BUIC	CENT	231	1	COLD TRANS	0.88	21.28	538.6	2.01	15.44
						COLD STAB	0.06	1.23	470.3	0.30	18.79
						HOT TRANS	0.28	2.90	479.6	0.54	18.30
						1975 FTP	0.29	5.81	486.9	0.72	17.86

COMMENTS: MIXTURE ADJ PLUG OK.

0040	80	AMC	CONC	258	1	COLD TRANS	0.47	16.57	598.0	1.14	14.19
						COLD STAB	0.11	0.97	553.8	0.71	15.97
						HOT TRANS	0.32	12.73	504.3	0.68	16.90
						1975 FTP	0.24	7.39	549.4	0.79	15.80

COMMENTS: MIXTURE ADJ PLUG OK.

0041	80	AMC	STAW	258	1	COLD TRANS	0.44	10.67	572.0	1.01	15.04
						COLD STAB	0.13	0.38	529.1	0.67	16.74
						HOT TRANS	0.59	11.11	485.3	0.52	17.59
						1975 FTP	0.32	5.43	526.0	0.70	16.57

COMMENTS: MIXTURE ADJ PLUG OK, TINO -3.

0042	80	FORD	LTD	351	1	COLD TRANS	0.72	8.41	625.8	1.13	13.84
						COLD STAB	0.18	0.23	598.6	0.53	14.80
						HOT TRANS	0.28	2.56	522.8	0.68	16.82
						1975 FTP	0.32	2.55	583.5	0.69	15.08

COMMENTS: MIXTURE ADJ PLUG OK

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0043	80	BUIC	LESA	231	1	COLD TRANS	0.73	13.76	519.2	1.43	16.34
						COLD STAB	0.06	1.84	457.5	0.79	19.27
						HOT TRANS	0.40	2.76	441.2	1.13	19.86
						1975 FTP	0.29	4.54	465.7	1.01	18.73
COMMENTS: MIXTURE ADJ PLUG OK, DEF THERMAC SNR LETS VAC TO INLET DOOR DIAPHRAGM CONSTANTLY.											
0044	80	FORD	STAW	200	1	COLD TRANS	0.57	10.78	555.7	0.93	15.45
						COLD STAB	0.09	0.03	462.6	1.14	19.17
						HOT TRANS	0.35	3.79	466.6	0.66	18.74
						1975 FTP	0.26	3.27	482.9	0.97	18.16
COMMENTS: MIXTURE ADJ PLUG OK.											
0045	80	OLDS	CUTL	305	1	COLD TRANS	0.65	14.15	667.9	0.88	12.82
						COLD STAB	0.05	2.02	627.5	0.38	14.07
						HOT TRANS	0.18	4.23	551.3	0.53	15.89
						1975 FTP	0.21	5.12	615.0	0.52	14.23
COMMENTS: MIXTURE ADJ PLUG OK.											
0046	80	FORD	MUST	200	1	COLD TRANS	2.51	63.65	438.2	0.22	16.25
						COLD STAB	0.24	7.31	477.8	0.73	18.11
						HOT TRANS	0.96	28.02	418.3	0.32	19.07
						1975 FTP	0.90	24.56	453.4	0.51	17.94
COMMENTS: MIXTURE ADJ PLUG OK, VAC HOSE TO THERMACTOR AIR CONTROL VLV KINKED CLOSED.											
0046	80	FORD	MUST	200	2	COLD TRANS	0.54	4.96	533.9	0.75	16.33
						COLD STAB	0.09	0.00	498.7	0.95	17.79
						HOT TRANS	0.31	1.42	442.5	0.61	19.91
						1975 FTP	0.24	1.41	490.6	0.82	17.98
COMMENTS: RERTD THERMACTOR AIR CONTROL VAC HOSE.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISABLE, SN-3, REPLACE O2 SNR, SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN-5, AFTER MAJOR TUNE-UP, SN-6, ECM DISCNCTD, SN-7, O2 SNR DISCNCTD, SN-8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD, SN-9, CTS DISCNCTD, SN-10, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0047	80	DATS	810	146	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.65 0.06 0.09 0.19	6.43 0.31 0.64 1.66	425.7 419.5 367.0 406.4	0.96 0.63 0.71 0.72	20.27 21.13 24.10 21.67
IHC, PPM HEXANE 15 ICD(ACTUAL), PCT 0.01											
COMMENTS: LIMITER CAP NA											
0048	80	FORD	STAM	200	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.56 0.15 0.47 0.32	3.59 0.00 3.12 1.59	528.4 456.9 455.8 471.3	0.96 0.84 0.60 0.80	16.56 19.41 19.20 18.69
IHC, PPM HEXANE 10 ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK											
0049	80	BUIC	CENT	231	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.66 0.09 0.23 0.22	17.94 0.74 1.75 4.56	526.3 488.8 453.6 486.9	1.84 0.75 0.97 1.04	15.95 18.11 19.42 17.94
IHC, PPM HEXANE 15 ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK											
0050	80	FORD	FAIR	200	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.58 0.06 0.33 0.24	6.24 0.00 2.45 1.95	511.1 467.0 438.6 468.3	0.03 0.86 0.51 0.77	16.98 19.00 20.01 18.80
IHC, PPM HEXANE 10 ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK											
0051	80	FORD	LTD	351	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.70 0.17 0.66 0.41	16.38 0.05 9.89 6.10	654.9 658.7 572.8 634.4	1.02 0.94 0.53 0.84	13.00 12.46 15.03 13.75
IHC, PPM HEXANE 10 ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAINS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISABLE, SN-3, REPLACE O2 SNSR,
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECH DISCNCTD, SN-7, O2 SNSR DISCNCTD,
SN-8, BATT DISCNCTD 10 MIN, O2 SNSR DISCNCTD, SN-9, CTS DISCNCTD, SN-10, TPB DISCNCTD

VEHICLE NUMBER	VR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0052	80	OLDS	CUTL	305	1	COLD TRANS	0.99	18.08	635.4	0.86	13.31
IHC, PPM HEXANE 10							0.05	3.55	662.8	0.18	13.28
ICD(ACTUAL), PCT 0.01							0.21	2.34	587.0	0.46	15.01
							0.29	6.21	636.5	0.39	13.71
COMMENTS: MIXTURE ADJ PLUG OK, DIST VAC ADV HOSE CRIMPED BY AIR CLEANER.											
0053	80	FORD	FAIR	200	1	COLD TRANS	0.35	1.50	488.1	1.10	18.06
IHC, PPM HEXANE 10							0.07	0.00	450.1	0.74	19.71
ICD(ACTUAL), PCT 0.01							0.28	2.31	427.6	0.53	20.54
							0.18	0.94	451.8	0.76	19.56
COMMENTS: MIXTURE ADJ PLUG OK, AIR CLEANER SNSR DEF. LETS VAC IN CONSTANTLY.											
0054	80	FORD	MUST	200	1	COLD TRANS	0.49	4.37	519.5	1.03	16.81
IHC, PPM HEXANE 10							0.08	0.00	505.7	0.91	17.54
ICD(ACTUAL), PCT 0.01							0.53	1.87	405.3	0.52	21.65
							0.29	1.41	481.1	0.83	18.33
COMMENTS: MIXTURE ADJ PLUG OK											
0055	80	OLDS	CUTL	305	1	COLD TRANS	0.42	9.53	651.4	0.95	13.29
IHC, PPM HEXANE 10							0.06	2.12	652.1	0.41	13.54
ICD(ACTUAL), PCT 0.01							0.16	2.51	562.2	0.75	15.66
							0.16	3.75	627.4	0.62	14.00
COMMENTS: MIXTURE ADJ PLUG OK											
0056	80	CADI	SEVI	350	1	COLD TRANS	1.01	20.95	702.2	1.30	12.02
IHC, PPM HEXANE 30							0.19	0.10	715.0	0.60	12.40
ICD(ACTUAL), PCT 0.01							0.35	0.53	602.6	1.23	14.68
							0.40	4.51	681.7	0.92	12.86
COMMENTS: LIMITER CAP NA.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0057	80	LINC	CONT	351	1	COLD TRANS	1.13	23.26	671.3	0.80	12.48
		IHC, PPM HEXANE	10			COLD STAB	0.39	0.69	647.2	0.64	13.66
		ICU(ACTUAL), PCT	0.01			HOT TRANS	0.53	8.11	549.0	0.62	15.75
						1975 FTP	0.58	7.36	625.4	0.67	13.89
COMMENTS: MIXTURE ADJ PLUG OK, DEF PROCESSOR ASSEMBLY, ENGINE RUNS SLIGHTLY LEAN, CODE 41.											
0057	80	LINC	CONT	351	2	COLD TRANS	0.95	18.97	637.3	0.94	13.24
		IHC, PPM HEXANE	10			COLD STAB	0.39	0.54	617.0	0.70	14.34
		ICU(ACTUAL), PCT	0.01			HOT TRANS	0.47	2.14	591.3	0.92	15.96
						1975 FTP	0.53	4.77	603.2	0.81	14.49
COMMENTS: ELECTRONIC PROCESSOR ASSEMBLY REPLACED.											
0058	80	CHEV	CAMA	305	1	COLD TRANS	1.18	34.60	660.0	0.70	12.36
		IHC, PPM HEXANE	10			COLD STAB	0.13	4.45	663.6	0.33	13.23
		ICU(ACTUAL), PCT	0.01			HOT TRANS	0.20	3.20	575.4	0.58	15.27
						1975 FTP	0.36	10.31	638.8	0.47	13.53
COMMENTS: MIXTURE ADJ PLUG OK, REAR VACUUM BREAK MALADJUSTED											
0058	80	CHEV	CAMA	305	2	COLD TRANS	0.94	19.69	669.8	0.75	12.61
		IHC, PPM HEXANE	10			COLD STAB	0.14	5.50	652.0	0.35	13.43
		ICU(ACTUAL), PCT	0.01			HOT TRANS	0.24	4.85	572.8	0.49	15.27
						1975 FTP	0.33	8.24	634.1	0.47	13.70
COMMENTS: ADJUST REAR VACUUM BREAK TO SPECS											
0059	80	FORD	FAIR	200	1	COLD TRANS	0.53	6.02	517.5	1.28	16.79
		IHC, PPM HEXANE	10			COLD STAB	0.09	0.00	445.4	1.14	19.92
		ICU(ACTUAL), PCT	0.01			HOT TRANS	0.43	1.89	414.6	0.89	21.18
						1975 FTP	0.27	1.76	451.8	1.10	19.49
COMMENTS: MIXTURE ADJ PLUG OK											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISAB; SN=3, REPLACE O2 SNBR;
SN=4, AFTER CORR. OF OTHER DISAB OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECH DISCNCTD; SN=7, O2 SNBR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0060	80	FORD	FAIR	200	1	COLD TRANS	0.63	5.60	514.7	1.24	16.89
						COLD STAB	0.09	0.00	436.8	1.12	20.30
						HOT TRANS	0.45	2.40	418.1	0.68	20.97
						1975 FTP	0.30	1.81	447.7	1.03	19.66
IHC, PPM HEXANE 10											
ICO(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK.											
0061	80	FORD	STAW	351	1	COLD TRANS	1.19	25.38	640.2	0.84	12.98
						COLD STAB	0.26	0.38	637.1	0.66	13.90
						HOT TRANS	0.56	6.35	547.7	0.66	15.86
						1975 FTP	0.53	7.16	613.4	0.70	14.17
IHC, PPM HEXANE 10											
ICO(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK, NEGATIVE BATTERY CABLE LOOSE, FUEL LEAK AT CARB INLET.											
0061	80	FORD	STAW	351	2	COLD TRANS	1.26	23.62	681.2	0.85	12.29
						COLD STAB	0.25	0.41	636.4	0.60	13.92
						HOT TRANS	0.38	3.57	563.5	0.80	15.56
						1975 FTP	0.50	6.05	625.7	0.71	13.94
IHC, PPM HEXANE 10											
ICO(ACTUAL), PCT 0.01											
COMMENTS: TIGHTENED NEGATIVE BATTERY CABLE, REPAIR INLET GAS LEAK.											
0061	80	FORD	STAW	351	3	COLD TRANS	0.94	23.01	658.8	0.78	12.72
						COLD STAB	0.23	0.26	635.4	0.64	13.94
						HOT TRANS	0.41	5.52	541.8	0.62	16.09
						1975 FTP	0.43	6.37	614.7	0.66	14.18
IHC, PPM HEXANE 10											
ICO(ACTUAL), PCT 0.01											
COMMENTS: REPLACE O2 SENSOR.											
0062	80	CHEV	CAMA	305	1	COLD TRANS	0.86	19.00	646.2	0.65	13.08
						COLD STAB	0.16	3.89	608.8	0.34	14.42
						HOT TRANS	0.38	3.31	531.8	0.44	16.49
						1975 FTP	0.36	6.84	595.5	0.43	14.61
IHC, PPM HEXANE 10											
ICO(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABILITIES; SN=3, REPLACE O2 SENSOR;
SN=4, AFTER CORR. OF OTHER DISABILITIES OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCONNECTED; SN=7, O2 SENSOR DISCONNECTED;
SN=8, BATT DISCONNECTED 10 MIN. O2 SENSOR DISCONNECTED; SN=9, CTS DISCONNECTED; SN=0, TPS DISCONNECTED

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0063	80	CADI	ELDO	350	1	COLD TRANS	0.64	10.75	710.7	1.09	12.16
		IHC, PPM HEXANE	15			COLD STAB	0.10	0.00	735.7	0.24	12.06
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.14	0.17	595.6	0.46	14.88
						1975 FTP	0.22	2.26	692.3	0.48	12.74
COMMENTS: LIMITER CAP NA.											
0064	80	CADI	SEVI	350	1	COLD TRANS	1.05	21.17	736.0	1.23	11.49
		IHC, PPM HEXANE	15			COLD STAB	0.14	0.13	723.7	0.54	12.25
		ICD(ACTUAL), PCT 99.99				HOT TRANS	0.18	0.36	605.5	0.78	14.63
						1975 FTP	0.34	4.52	694.0	0.75	12.64
COMMENTS: LIMITER CAP NA											
0065	80	FORD	FAIR	200	1	COLD TRANS	0.85	15.26	633.0	0.58	13.45
		IHC, PPM HEXANE	10			COLD STAB	0.18	0.15	523.5	0.49	16.93
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.57	10.61	499.2	0.35	17.14
						1975 FTP	0.43	6.12	539.4	0.47	16.13
COMMENTS: MIXTURE ADJ PLUG OK.											
0066	80	FORD	STAW	200	1	COLD TRANS	1.53	21.39	554.5	1.12	14.97
		IHC, PPM HEXANE	30			COLD STAB	0.38	0.49	509.6	0.81	17.35
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.79	6.91	477.9	0.87	18.07
						1975 FTP	0.73	6.54	510.2	0.89	16.98
COMMENTS: MIXTURE ADJ PLUG OK, CARB LEAN AT IDLE STAGE.											
0066	80	FORD	STAW	200	2	COLD TRANS	1.24	12.28	535.7	1.45	15.88
		IHC, PPM HEXANE	15			COLD STAB	0.32	0.20	508.3	0.79	17.41
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.65	3.84	470.0	0.93	18.56
						1975 FTP	0.60	3.68	503.5	0.97	17.36
COMMENTS: REPLACE CARB											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNBR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP,
SN=6, ECH DISCNCTD; SN=7, O2 SNBR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0072	80	LINC	HRK4	351	1	COLD TRANS	0.73	34.10	486.3	0.91	11.91
						COLD STAB	0.25	0.28	632.8	0.70	14.00
						HOT TRANS	0.32	7.10	560.7	0.64	15.49
						1975 FTP	0.37	9.52	624.1	0.65	13.86
COMMENTS: MIXTURE ADJ PLUG OK.											
0073	80	DATS	810	146	1	COLD TRANS	0.81	7.94	462.8	0.47	18.57
						COLD STAB	0.09	0.74	410.1	0.17	21.57
						HOT TRANS	0.18	1.87	394.8	0.45	22.29
						1975 FTP	0.27	2.53	416.7	0.31	21.05
COMMENTS: LIMITER CAP NA											
0074	80	OLDS	CUTL	305	1	COLD TRANS	0.66	12.76	647.9	1.15	13.25
						COLD STAB	0.06	1.92	617.7	0.51	14.30
						HOT TRANS	0.11	1.03	521.4	1.25	16.96
						1975 FTP	0.20	3.91	597.6	0.84	14.69
COMMENTS: MIXTURE ADJ PLUG OK, INDUCTION AIR HEAT TUBE NOT CNCTD TO MANIFOLD											
0075	80	CHRY	CORD	318	1	COLD TRANS	0.65	11.80	592.2	0.95	14.49
						COLD STAB	0.08	2.33	599.4	0.45	14.71
						HOT TRANS	0.26	4.96	513.7	0.67	16.99
						1975 FTP	0.25	4.93	574.5	0.61	15.22
COMMENTS: MIXTURE ADJ PLUG OK.											
0076	80	CHEV	CHET	98	1	COLD TRANS	1.26	40.36	411.8	0.25	18.52
						COLD STAB	0.08	0.43	370.7	1.37	23.88
						HOT TRANS	0.23	3.06	358.7	1.33	24.36
						1975 FTP	0.36	9.37	375.9	1.13	22.65
COMMENTS: MIXTURE ADJ PLUG OK, EGR VALVE DIAPHRAGM LEAKS WHEN HOT.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR,
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECH DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0076	80	CHEV	CHET	98	2	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.70 0.04 0.15 0.21	14.62 0.28 3.12 4.01	408.9 353.1 342.1 361.6	0.74 0.52 0.35 0.52	20.45 25.09 25.55 24.08
COMMENTS: EGR VALVE REPLACED											
0077	80	OLDS	CUTL	305	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	1.40 0.07 0.16 0.37	14.09 1.10 1.64 3.92	615.0 623.2 530.8 596.3	1.03 0.69 0.79 0.79	13.83 14.20 16.63 14.70
COMMENTS: MIXTURE ADJ PLUG OK.											
0078	80	OLDS	CUTL	305	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.77 0.07 0.13 0.23	14.23 1.07 1.42 3.88	619.6 637.4 527.7 603.8	1.13 0.61 0.92 0.80	13.77 13.88 16.73 14.53
COMMENTS: MIXTURE ADJ PLUG OK.											
0079	80	OLDS	CUTL	305	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.39 0.05 0.09 0.13	11.39 1.25 0.95 3.26	659.8 642.2 566.8 625.2	0.87 0.37 0.66 0.55	13.07 13.78 15.61 14.07
COMMENTS: MIXTURE ADJ PLUG OK.											
0080	80	DODG	OHNI	105	1	COLD TRANS COLD STAB HOT TRANS 1975 FTP	0.68 0.06 0.09 0.19	12.03 0.15 0.25 2.63	349.6 383.0 321.8 359.4	0.73 0.30 0.67 0.49	23.94 23.15 27.53 24.37
COMMENTS: MIXTURE ADJ PLUG OK.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LDB ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPB DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	MDXC	FUEL ECON
0081	80	DATS	280Z	168	1	COLD TRANS	0.56	8.97	478.7	1.13	18.05
						COLD STAB	0.14	1.02	509.1	1.08	17.56
						HOT TRANS	0.25	2.14	414.9	1.14	21.10
						1975 FTP	0.26	2.96	476.5	1.11	18.41
COMMENTS: LIMITER CAP NA, IRPM + 150.											
0082	80	PLYM	HORI	105	1	COLD TRANS	1.18	26.07	433.0	0.97	18.58
						COLD STAB	0.08	0.41	392.7	0.39	22.55
						HOT TRANS	0.17	1.34	367.9	0.91	23.96
						1975 FTP	0.33	5.94	394.2	0.65	21.94
COMMENTS: MIXTURE ADJ PLUG OK.											
0083	80	CHRY	CORD	318	1	COLD TRANS	0.69	10.14	649.9	1.53	13.29
						COLD STAB	0.07	2.05	685.4	1.17	12.88
						HOT TRANS	0.23	6.85	554.3	1.19	15.63
						1975 FTP	0.24	5.02	642.9	1.24	13.62
COMMENTS: MIXTURE ADJ PLUG OK, IRPM +150, CARB LEAN AT IDLE STAGE.											
0083	80	CHRY	CORD	318	2	COLD TRANS	0.48	8.30	666.0	1.48	12.04
						COLD STAB	0.09	2.33	621.4	0.87	14.19
						HOT TRANS	0.22	4.62	558.1	0.89	15.68
						1975 FTP	0.21	4.18	613.3	1.00	14.30
COMMENTS: ADJ CARB AIR MIXTURE.											
0084	80	PLYM	HORI	105	1	COLD TRANS	2.40	37.86	434.8	0.98	17.68
						COLD STAB	0.11	0.66	415.7	0.37	21.28
						HOT TRANS	0.36	1.84	373.8	0.98	23.49
						1975 FTP	0.65	8.64	408.2	0.66	20.94
COMMENTS: LIMITER CAP MIS, PURGE SOLENOID VLV LOOSE, NUMBER MISSING ON CARB.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISABLE, SN-3, REPLACE O2 SNER,
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECM DISCNCTD, SN-7, O2 SNER DISCNCTD,
SN-8, BATT DISCNCTD 10 MIN, O2 SNER DISCNCTD, SN-9, CTS DISCNCTD, SN-10, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CTD	SN	TEST TYPE	HC	CO	CO2	MDXC	FUEL ECON
0084	80	PLYM	HORI	105	2	COLD TRANS	1.82	35.94	421.1	0.90	18.36
		INC, PPM HEXANE				COLD STAB	0.10	1.00	423.1	0.31	20.88
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.37	1.00	375.2	0.94	23.48
						1975 FTP	0.53	8.20	409.4	0.61	20.92
COMMENTS: PURGE SOLENOID VALVE REPAIRED.											
0084	80	PLYM	HORI	105	3	COLD TRANS	1.88	33.15	416.3	0.88	18.71
		INC, PPM HEXANE				COLD STAB	0.09	0.95	428.2	0.33	20.64
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.49	1.73	381.0	0.93	23.04
						1975 FTP	0.57	7.79	412.9	0.61	20.79
COMMENTS: O2 SNER REPLACED.											
0084	80	PLYM	HORI	105	4	COLD TRANS	2.59	31.09	418.4	0.96	18.67
		INC, PPM HEXANE				COLD STAB	0.14	1.02	410.5	0.32	21.52
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.54	1.81	370.8	1.03	23.65
						1975 FTP	0.75	7.43	401.3	0.65	21.37
COMMENTS: REPLACE CARB SOL PURGE SEAL, ADJUST CARB.											
0084	80	PLYM	HORI	105	5	COLD TRANS	1.94	25.15	414.9	1.04	19.27
		INC, PPM HEXANE				COLD STAB	0.12	0.33	394.4	0.36	22.45
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.27	1.64	357.2	1.12	24.61
						1975 FTP	0.53	5.80	388.5	0.71	22.23
COMMENTS: REPLACE CARB, REPLACE SPARK PLUGS.											
0085	80	CADI	DEVI	368	1	COLD TRANS	1.18	15.21	720.1	1.98	11.87
		INC, PPM HEXANE				COLD STAB	0.16	0.18	668.3	1.49	13.26
		ICD(ACTUAL), PCT 0.01				HOT TRANS	0.40	1.17	598.2	2.01	14.76
						1975 FTP	0.44	3.54	659.8	1.74	13.31
COMMENTS: MIXTURE ADJ PLUG OK, CHOKER UNLOADER ARM BINDING AGAINST FRONT VAC BREAK ARM, CODE 12.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNRS;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNRS DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNRS DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0085	80	CADI	DEVI	368	2	COLD TRANS	2.08	19.08	720.2	2.03	11.73
IHC, PPM HEXANE			20			COLD STAB	0.18	0.23	658.4	1.39	13.46
ICD(ACTUAL), PCT	0.01					HOT TRANS	0.31	0.93	586.5	1.86	15.07
						1975 FTP	0.61	4.31	651.5	1.65	13.44
COMMENTS: REPAIRED ARM TO ARM BINDING.											
0085	80	CADI	DEVI	368	3	COLD TRANS	1.50	19.30	743.5	1.95	11.40
IHC, PPM HEXANE			40			COLD STAB	0.17	0.10	667.9	1.45	13.27
ICD(ACTUAL), PCT	0.01					HOT TRANS	0.23	0.33	601.0	1.89	14.74
						1975 FTP	0.46	4.12	665.2	1.67	13.18
COMMENTS: REPLACED O2 SNRS.											
0086	80	CADI	SEVI	350	1	COLD TRANS	1.47	29.08	760.8	0.90	10.94
IHC, PPM HEXANE			30			COLD STAB	0.22	0.20	700.1	0.20	12.66
ICD(ACTUAL), PCT	0.01					HOT TRANS	0.40	0.58	586.6	0.53	15.07
						1975 FTP	0.53	6.25	681.6	0.44	12.81
COMMENTS: LIMITER CAP NA.											
0087	80	PLYM	HORI	105	1	COLD TRANS	0.87	30.11	436.8	0.68	18.23
IHC, PPM HEXANE			10			COLD STAB	0.08	0.18	444.0	0.39	19.97
ICD(ACTUAL), PCT	0.01					HOT TRANS	0.15	0.75	380.2	0.84	23.24
						1975 FTP	0.26	6.50	425.1	0.57	20.35
COMMENTS: MIXTURE ADJ PLUG OK.											
0088	80	CADI	SEVI	350	1	COLD TRANS	1.26	24.09	736.8	2.17	11.40
IHC, PPM HEXANE			30			COLD STAB	0.20	0.03	696.2	0.82	12.74
ICD(ACTUAL), PCT	0.01					HOT TRANS	0.33	0.50	600.5	1.70	14.74
						1975 FTP	0.46	5.11	678.4	1.34	12.90
COMMENTS: LIMITER CAP NA.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECH DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0089	80	CHRY	LEBA	225	1	COLD TRANS	0.75	6.66	564.3	1.47	15.38
						COLD STAB	0.09	0.49	523.9	0.72	16.91
						HOT TRANS	0.35	3.84	485.7	1.27	18.01
						1975 FTP	0.30	2.67	521.8	1.03	16.84
						COMMENTS: MIXTURE ADJ PLUG OK, CHOKE PULL OFF -.085 LEAN.					
0090	80	CADI	DEVI	368	1	COLD TRANS	1.22	17.16	728.9	1.44	11.68
						COLD STAB	0.27	0.43	666.7	0.46	12.28
						HOT TRANS	0.43	1.75	580.1	0.85	15.19
						1975 FTP	0.51	4.24	655.9	0.77	13.26
						COMMENTS: MIXTURE ADJ PLUG OK, CNSTR PURGE CONTROL VLV DISCNCTD, CODE 12.					
0091	80	CADI	SEVI	350	1	COLD TRANS	1.11	14.29	674.4	1.39	12.67
						COLD STAB	0.16	0.05	700.1	0.30	12.67
						HOT TRANS	0.24	0.22	576.6	0.56	15.36
						1975 FTP	0.38	3.03	661.1	0.59	13.31
						COMMENTS: LIMITER CAP NA					
0092	80	CADI	ELDO	350	1	COLD TRANS	1.42	13.18	663.8	1.05	12.88
						COLD STAB	0.13	0.03	699.0	0.37	12.69
						HOT TRANS	0.27	0.33	583.9	0.69	15.16
						1975 FTP	0.43	2.82	660.4	0.60	13.32
						COMMENTS: LIMITER CAP NA.					
0093	80	CHEV	MALI	231	1	COLD TRANS	0.73	16.27	518.6	1.74	16.24
						COLD STAB	0.09	3.71	471.7	0.12	18.58
						HOT TRANS	0.16	2.79	444.1	0.26	19.77
						1975 FTP	0.24	6.04	473.8	0.49	18.34
						COMMENTS: MIXTURE ADJ PLUG OK.					

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLE, SN=3, REPLACE O2 SNBR,
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN=5, AFTER MAJOR TUNE-UP,

SN=6, ECM DISCNCTD, SN=7, O2 SNBR DISCNCTD,

SN=8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0094	80	CHEV	CAPR	231	1	COLD TRANS	1.47	31.48	499.6	0.57	16.01
						COLD STAB	0.05	1.07	503.9	0.32	17.55
						HOT TRANS	0.18	2.23	451.4	0.44	19.49
						1975 FTP	0.42	7.65	488.7	0.41	17.68

COMMENTS: MIXTURE ADJ PLUG OK, IRPM +125, CARB
BOWL PURGE HOSE EXCESSIVELY WET AT CANISTER.

0095	80	CHEV	MAL1	231	1	COLD TRANS	1.54	33.82	478.8	1.24	16.53
						COLD STAB	0.20	4.50	468.2	0.23	18.65
						HOT TRANS	0.40	4.51	429.8	0.45	20.26
						1975 FTP	0.53	10.54	459.9	0.50	18.36

COMMENTS: MIXTURE ADJ PLUG OK, LOOSE HARNESS CONNECTION AT ECM.

0095	80	CHEV	MAL1	231	2	COLD TRANS	0.97	20.86	404.4	1.86	17.06
						COLD STAB	0.12	3.35	472.5	0.38	18.56
						HOT TRANS	0.19	3.01	424.8	0.59	20.63
						1975 FTP	0.31	6.86	461.9	0.74	18.74

COMMENTS: CONNECTION AT ECM REPAIRED.

0096	80	CADI	FLEE	368	1	COLD TRANS	2.44	45.52	721.3	0.94	11.09
						COLD STAB	0.12	0.20	671.9	0.82	13.19
						HOT TRANS	0.38	2.14	604.3	0.78	14.58
						1975 FTP	0.67	10.06	653.7	0.83	13.02

COMMENTS: MIXTURE ADJ PLUG OK, SECONDARY CHOKE ANGLE OVER 16 DEGREES RICH.

0096	80	CADI	FLEE	368	2	COLD TRANS	1.20	20.42	734.1	0.86	11.53
						COLD STAB	0.12	0.08	675.1	0.59	13.14
						HOT TRANS	0.38	1.59	610.6	0.61	14.45
						1975 FTP	0.41	4.68	669.6	0.65	13.09

COMMENTS: SECONDARY CHOKE ANGLE ADJUSTED.

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;

SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;

SN-6, ECM DISCNCTD; SN-7, O2 SNBR DISCNCTD;

SN-8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0097	80	CADI	DEVI	368	1	COLD TRANS	0.93	12.53	726.7	1.08	11.84
						COLD STAB	0.14	0.08	692.1	0.50	12.81
						HOT TRANS	0.28	1.50	598.4	0.87	14.75
						1975 FTP	0.34	3.03	673.7	0.72	13.06

COMMENTS: MIXTURE ADJ PLUG OK. SECONDARY CHOKE ANGLE OVER 8 DEGREES RICH.

0098	80	CADI	FLEE	368	1	COLD TRANS	1.01	15.40	706.1	1.35	12.10
						COLD STAB	0.10	0.03	690.0	0.81	12.86
						HOT TRANS	0.33	0.67	590.8	1.03	14.97
						1975 FTP	0.35	3.37	666.3	0.98	13.19

COMMENTS: MIXTURE ADJ PLUG OK. SECONDARY CHOKE ANGLE OVER 8 DEGREES RICH.

0098	80	CADI	FLEE	368	6	COLD TRANS	3.83	85.79	667.1	0.41	10.90
						COLD STAB	0.39	12.35	665.5	0.50	12.94
						HOT TRANS	0.74	33.68	575.6	0.37	14.07
						1975 FTP	1.19	33.29	641.3	0.45	12.73

COMMENTS: SECONDARY CHOKE ANGLE REPAIRED. ECM DISCNCTD, NO CODE.

0098	80	CADI	FLEE	368	7	COLD TRANS	1.91	26.13	684.1	0.87	12.14
						COLD STAB	0.41	6.32	653.5	0.53	13.35
						HOT TRANS	0.87	14.18	574.2	0.62	14.81
						1975 FTP	0.84	12.54	638.1	0.63	13.44

COMMENTS: O2 SNBR DISCNCTD WITH JUMPER CLIP, CODE 12 AND 44.

0098	80	CADI	FLEE	368	8	COLD TRANS	1.98	27.66	681.5	1.02	12.16
						COLD STAB	0.40	6.65	658.6	0.51	13.24
						HOT TRANS	0.72	13.98	568.2	.60	14.98
						1975 FTP	0.73	12.97	638.7	.64	13.42

COMMENTS: BATT DISCNCTD FOR 10 MIN THEN O2 SNBR DISCNCTD WITH JUMPER CLIP
CODE 12 AND 44.

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES •

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE Q2 SNR,
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP,
SN=6, ECM DISCNCTD; SN=7, Q2 SNR DISCNCTD,
SN=8, BATT DISCNCTD 10 MIN, Q2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
009B	80	CADI	FLEE	368	9	COLD TRANS	0.97	11.36	679.5	1.35	12.67
IHC, PPM HEXANE						COLD STAB	0.11	0.03	631.7	0.52	14.04
ICD(ACTUAL), PCT 0.01						HOT TRANS	0.37	0.81	548.9	1.58	16.10
						1975 FTP	0.36	2.57	619.0	0.98	14.22

COMMENTS: CTS DISCNCTD, CODE 12, 13 AND 15.

0099	80	FORD	LTD	351	1	COLD TRANS	0.62	11.25	648.8	0.67	13.28
IHC, PPM HEXANE						COLD STAB	0.20	0.36	632.0	0.47	14.02
ICD(ACTUAL), PCT 0.01						HOT TRANS	0.38	3.09	531.8	0.57	15.91
						1975 FTP	0.34	3.35	613.6	0.54	14.32

COMMENTS: MIXTURE ADJ PLUG OK, CODE 42 AND 41.
FUEL CONTROL RICH AND FUEL CONTROL LEAN.

0100	80	FORD	LTD	351	1	COLD TRANS	0.67	5.65	581.0	1.75	14.99
IHC, PPM HEXANE						COLD STAB	0.18	0.03	616.6	0.43	14.38
ICD(ACTUAL), PCT 0.01						HOT TRANS	0.19	0.64	512.6	1.17	17.26
						1975 FTP	0.28	1.35	580.9	0.91	15.20

COMMENTS: MIXTURE ADJ PLUG OK, CODE 42 MIXTURE CONTROL RICH.

0101	80	FORD	LTD	351	1	COLD TRANS	1.67	26.66	605.1	0.72	13.61
IHC, PPM HEXANE						COLD STAB	0.20	0.13	615.2	0.64	14.41
ICD(ACTUAL), PCT 0.01						HOT TRANS	0.36	3.96	522.8	0.58	16.74
						1975 FTP	0.55	6.63	587.9	0.64	14.79

COMMENTS: MIXTURE ADJ PLUG OK.

0102	80	CADI	DEVI	368	1	COLD TRANS	0.66	11.78	691.7	0.75	12.46
IHC, PPM HEXANE						COLD STAB	0.09	0.00	648.6	0.46	13.68
ICD(ACTUAL), PCT 0.01						HOT TRANS	0.30	0.70	575.0	0.67	15.38
						1975 FTP	0.26	2.62	637.4	0.58	13.82

COMMENTS: MIXTURE ADJ PLUG OK. SECONDARY CHOKE ANGLE OVER 8 DEGREES RICH.

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNBR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECH DISCNCTD; SN=7, O2 SNBR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0102	80	CADI	DEVI	368	6	COLD TRANS	2.87	118.69	657.7	0.24	10.40
						COLD STAB	0.54	36.39	686.2	0.21	11.91
						HOT TRANS	1.04	62.06	577.4	0.22	13.09
						1975 FTP	1.16	60.34	650.7	0.22	11.85
COMMENTS: SECONDARY CHOKE ANGLE ADJUSTED, ECH DISCNCTD, NO CODE											
0102	80	CADI	DEVI	368	7	COLD TRANS	1.28	31.56	706.5	0.82	11.67
						COLD STAB	0.41	9.46	685.0	0.39	12.66
						HOT TRANS	0.86	23.01	601.3	0.45	13.86
						1975 FTP	0.71	17.71	666.6	0.50	12.74
COMMENTS: O2 SNBR DISCNCTD WITH JUMPER CLIP, CODE 12 AND 44.											
0102	80	CADI	DEVI	368	8	COLD TRANS	1.45	29.44	689.3	0.87	11.99
						COLD STAB	0.43	6.98	677.4	0.48	12.87
						HOT TRANS	0.71	20.03	591.9	0.49	14.19
						1975 FTP	0.71	15.16	656.5	0.56	13.00
COMMENTS: BATT DISCNCTD FOR 10 MIN THEN O2 SNBR DISCNCTD WITH JUMPER CLIP CODE 12 AND 44.											
0102	80	CADI	DEVI	368	9	COLD TRANS	1.05	10.97	714.7	1.25	12.07
						COLD STAB	0.10	0.00	660.0	0.58	13.44
						HOT TRANS	0.29	1.20	573.2	1.40	15.41
						1975 FTP	0.35	2.59	647.6	0.94	13.60
COMMENTS: CTS DISCNCTD, CODE 12 AND 15.											
0103	80	CADI	SEVI	350	1	COLD TRANS	0.92	15.21	669.3	2.06	12.75
						COLD STAB	0.16	0.26	670.9	0.53	13.21
						HOT TRANS	0.28	0.39	577.0	1.24	15.34
						1975 FTP	0.35	3.37	645.0	1.04	13.63
COMMENTS: LIMITER CAP NA.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISABLE, SN-3, REPLACE O2 SNR, SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN-5, AFTER MAJOR TUNE-UP, SN-6, ECM DISCNCTD, SN-7, O2 SNR DISCNCTD, SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD, SN-9, CTS DISCNCTD, SN-0, TPS DISCNCTD

SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD, SN-9, CTS DISCNCTD, SN-0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0104	80	VOLK	SCIR	97	1	COLD TRANS	0.45	3.70	347.8	0.84	25.00
						COLD STAB	0.24	1.84	366.6	0.11	23.97
						HOT TRANS	0.18	0.78	309.3	0.16	28.53
						1975 FTP	0.27	1.94	347.1	0.27	25.29

COMMENTS: LIMITER CAP NA.

0105	80	CADI	SEVI	350	1	COLD TRANS	1.24	15.35	673.3	1.77	12.65
						COLD STAB	0.28	1.41	709.4	0.45	12.45
						HOT TRANS	0.38	0.97	587.1	1.04	15.05
						1975 FTP	0.51	4.16	668.6	0.88	13.12

COMMENTS: LIMITER CAP NA.

0106	80	DODG	OMNI	105	1	COLD TRANS	1.07	16.41	383.0	1.24	21.54
						COLD STAB	0.05	2.23	430.0	0.41	20.47
						HOT TRANS	0.21	1.87	356.9	1.10	24.62
						1975 FTP	0.31	5.05	400.4	0.77	21.69

COMMENTS: MIXTURE ADJ PLUG OK, IRPM -125.

0107	80	PLYM	VOLA	225	1	COLD TRANS	0.78	11.95	568.5	1.60	15.05
						COLD STAB	0.18	1.56	472.8	0.85	18.65
						HOT TRANS	0.67	11.59	452.0	1.16	18.79
						1975 FTP	0.43	6.43	486.8	1.09	17.81

COMMENTS: MIXTURE ADJ PLUG OK, TING +5.

0108	80	VOLK	SCIR	97	1	COLD TRANS	0.47	3.34	339.0	1.09	25.67
						COLD STAB	0.03	0.10	385.3	0.58	23.02
						HOT TRANS	0.05	0.17	309.2	0.97	28.66
						1975 FTP	0.12	0.79	355.0	0.79	24.89

COMMENTS: LIMITER CAP NA.

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0109	80	CHRY	CORD	318	1	COLD TRANS	0.67	7.91	590.4	1.16	14.67
						COLD STAB	0.09	1.53	589.4	0.46	14.99
						HOT TRANS	0.20	3.62	507.6	0.66	17.27
						1975 FTP	0.24	3.42	567.3	0.66	15.48
IHC, PPM HEXANE 10											
ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK, INTERMITTENT LIFTER NOISE.											
0110	80	CHRY	CORD	318	1	COLD TRANS	0.88	14.32	574.2	1.76	14.81
						COLD STAB	0.50	18.26	516.1	0.78	16.24
						HOT TRANS	2.60	15.29	463.6	0.84	17.90
						1975 FTP	1.15	16.64	513.7	1.00	16.33
IHC, PPM HEXANE 10											
ICD(ACTUAL), PCT 0.01											
COMMENTS: MIXTURE ADJ PLUG OK, O2 SNR NOT CONNECTED, IRPN-160, TING -4, AMPLIFIER OFF.											
0110	80	CHRY	CORD	318	2	COLD TRANS	1.15	15.38	576.2	1.50	14.69
						COLD STAB	0.59	20.46	494.5	0.76	16.79
						HOT TRANS	0.49	11.62	448.6	0.94	18.95
						1975 FTP	0.68	17.00	498.8	0.96	16.82
IHC, PPM HEXANE 10											
ICD(ACTUAL), PCT 0.01											
COMMENTS: CONNECT O2 SENSOR.											
0110	80	CHRY	CORD	318	3	COLD TRANS	1.19	19.69	567.8	1.35	14.73
						COLD STAB	0.60	19.90	503.6	0.60	16.53
						HOT TRANS	1.01	14.65	456.2	1.03	18.40
						1975 FTP	0.83	18.42	503.9	0.87	16.57
IHC, PPM HEXANE 5											
ICD(ACTUAL), PCT 0.01											
COMMENTS: REPLACE O2 SENSOR.											
0110	80	CHRY	CORD	318	4	COLD TRANS	0.74	8.64	575.3	1.47	15.01
						COLD STAB	0.30	8.52	551.9	0.65	15.68
						HOT TRANS	0.50	9.86	458.7	0.88	18.65
						1975 FTP	0.45	8.91	531.3	0.88	16.24
IHC, PPM HEXANE 5											
ICD(ACTUAL), PCT 0.01											
COMMENTS: ADJ IRPM, ADJ TIMING, ADJ CARB MIXTURE, VAC AMPLIFIER REPLACED.											

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE FUEL ECONOMY IN MILES PER GALLON										
SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR; SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP; SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD; SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD										
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	FUEL ECON
0111	80	DODG	MIRA	318	1	COLD TRANS	0.57	6.57	565.0	15.38
						COLD STAB	0.13	3.50	570.6	15.40
						HOT TRANS	0.21	4.21	491.7	17.79
						1975 FTP	0.24	4.33	547.9	15.98
IHC, PPM HEXANE 10 ICO(ACTUAL), PCT 0.01										
COMMENTS: MIXTURE ADJ PLUG OK, CNSTR SIGNAL HOSE DISCNCTD AT CNSTR VACUUM DELAY VALVE.										
0112	80	AUDI	5000	131	1	COLD TRANS	0.48	5.88	522.1	16.66
						COLD STAB	0.03	0.00	528.9	16.78
						HOT TRANS	0.17	0.47	456.4	19.39
						1975 FTP	0.16	1.34	507.7	17.39
IHC, PPM HEXANE 100 ICO(ACTUAL), PCT 0.80										
COMMENTS: LIMITER CAP NA.										
0113	80	AUDI	4000	97	1	COLD TRANS	0.37	5.13	384.7	22.53
						COLD STAB	0.01	0.23	414.3	21.40
						HOT TRANS	0.06	0.28	343.8	25.77
						1975 FTP	0.10	1.25	389.0	22.68
IHC, PPM HEXANE 50 ICO(ACTUAL), PCT 0.70										
COMMENTS: LIMITER CAP NA.										
0114	80	CADI	DEVI	368	1	COLD TRANS	0.74	6.38	744.8	11.72
						COLD STAB	0.13	0.08	699.6	12.68
						HOT TRANS	0.15	0.25	607.7	14.58
						1975 FTP	0.26	1.42	683.8	12.92
IHC, PPM HEXANE 5 ICO(ACTUAL), PCT 0.01										
COMMENTS: MIXTURE ADJ PLUG OK, AUTOMATIC TRANSMISSION KICK DOWN SWITCH DISCNCTD AND WIRE BROKEN.										
0114	80	CADI	DEVI	368	0	COLD TRANS	1.52	34.76	755.2	10.90
						COLD STAB	0.42	4.27	719.0	12.21
						HOT TRANS	0.67	11.53	631.3	13.62
						1975 FTP	0.71	12.53	702.5	12.25
IHC, PPM HEXANE 5 ICO(ACTUAL), PCT 0.01										
COMMENTS: TPS DISCNCTD, CODE 12, 21 AND 43.										

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP,
SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECON
0115	80	CADI	DEVI	368	1	COLD TRANS	0.84	8.36	709.0	1.21	12.25
		IHC, PPM HEXANE	5			COLD STAB	0.13	0.00	668.2	0.78	13.27
		ICG(ACTUAL), PCT	0.01			HOT TRANS	0.24	0.95	587.4	1.23	15.05
						1975 FTP	0.30	1.98	654.6	0.99	13.48
COMMENTS: MIXTURE ADJ PLUG OK, IRPM +125, SECONDARY CHOKE PULL OFF 4 DEGREES RICH, CODE 12.											
0115	80	CADI	DEVI	368	0	COLD TRANS	1.53	42.98	718.7	0.63	11.22
		IHC, PPM HEXANE	25			COLD STAB	0.53	12.69	711.4	0.48	12.11
		ICG(ACTUAL), PCT	0.01			HOT TRANS	0.75	17.08	605.2	0.61	13.99
						1975 FTP	0.80	20.12	683.9	0.55	12.36
COMMENTS: TPS DISABLED, CODE 12, 21, 43.											
0116	80	CADI	COUP	368	1	COLD TRANS	0.90	13.84	709.5	1.52	12.09
		IHC, PPM HEXANE	10			COLD STAB	0.11	0.00	640.9	1.05	13.84
		ICG(ACTUAL), PCT	0.01			HOT TRANS	0.29	0.86	569.5	1.69	15.53
						1975 FTP	0.31	3.09	635.6	1.32	13.84
COMMENTS: MIXTURE ADJ PLUG OK, SECONDARY CHOKE ANGLE OVER 4 DEGREES RICH.											

APPENDIX D

LISTING OF EVAPORATIVE EMISSIONS TEST PROCEDURE RESULTS

ON INDIVIDUAL VEHICLES

APPENDIX D

LISTING OF EVAPORATIVE EMISSIONS TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEHICLE NUMBER	MODEL YEAR	MAKE	MODEL	CID	DIURNAL	HC, GRAMS HOT SOAK	TOTAL
0009	80	PLYM	VOLA	225	2.35	5.26	7.61
0011	80	GLDB	CUTL	231	0.56	0.68	1.24
0033	80	GLDB	CUTL	305	0.53	0.65	1.18
0056	80	CADI	SEVI	350	0.45	0.37	0.82
0060	80	FORD	FAIR	200	1.93	0.40	2.33
0062	80	CHEV	CANA	305	0.74	0.60	1.34
0065	80	FORD	FAIR	200	0.15	0.72	0.87
0074	80	GLDB	CUTL	305	0.24	1.35	1.59
0075	80	CHRY	CORD	318	0.24	0.72	0.95
0076	80	CHEV	CHET	98	1.31	0.49	1.80
0080	80	DODG	CHNI	105	0.17	0.51	0.68
0081	80	DATS	280Z	168	0.14	0.43	0.57
0082	80	PLYM	HORI	105	0.30	0.45	0.75
0083	80	CHRY	CORD	318	0.21	1.07	1.28
0084	80	PLYM	HORI	105	0.41	1.02	1.43
0085	80	CADI	DEVI	368	1.58	0.63	2.21
0086	80	CADI	SEVI	350	0.62	0.31	0.93
0087	80	PLYM	HORI	105	0.63	0.58	1.21
0088	80	CADI	SEVI	350	0.32	0.35	0.67
0089	80	CHRY	LEBA	225	1.10	2.71	3.81
0093	80	CHEV	MALI	231	0.31	0.64	0.95
0094	80	CHEV	CAPR	231	3.02	0.68	3.70
0095	80	CHEV	MALI	231	1.44	0.49	1.93
0096	80	CADI	FLEE	368	1.88	2.57	4.45
0111	80	DODG	MIRA	318	1.20	2.35	3.55

APPENDIX E

LISTING OF HIGHWAY FUEL ECONOMY TEST RESULTS ON INDIVIDUAL VEHICLES

APPENDIX E

LISTING OF HIGHWAY FUEL ECONOMY TEST EMISSIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNRS;

SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;

SN-6, ECM DISCNCTD; SN-7, O2 SNRS DISCNCTD;

SN-8, BATT DISCNCTD 10 MIN, O2 SNRS DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE NUMBER	MODEL YEAR	MAKE	MODEL	CID	SN	HC	CO	CO2	MOXC	FUEL ECON
0001	80	PONT	FIRE	305	1	2.83	95.62	426.40	0.24	15.14
0001	80	PONT	FIRE	305	2	1.46	15.02	537.70	0.22	15.67
0001	80	PONT	FIRE	305	3	0.08	0.90	556.20	0.53	15.90
9002	79	PLYM	VOLA	225	1	0.17	0.51	438.40	3.75	20.17
9003	79	PLYM	VOLA	225	1	0.31	12.49	514.30	0.30	16.59
9003	79	PLYM	VOLA	225	2	0.04	1.15	429.00	1.67	20.58
0004	80	VOLK	RABR	97	1	0.13	2.61	260.70	0.03	33.44
0005	80	CHEV	IMPA	305	1	2.22	91.68	317.90	0.33	18.91
0005	80	CHEV	IMPA	305	2	0.06	2.04	406.30	0.79	21.64
0005	80	CHEV	IMPA	305	3	0.04	0.17	412.20	0.98	21.49
9006	79	DODG	STAM	225	1	0.05	0.42	463.50	2.18	19.11
0007	80	CHEV	MONT	231	1	0.09	0.27	435.70	0.81	20.32
9008	79	PLYM	VOLA	225	1	0.21	2.04	439.70	1.46	20.01
9008	79	PLYM	VOLA	225	2	0.06	1.56	453.30	1.96	19.45
0009	80	PLYM	VOLA	225	1	0.14	7.79	497.00	0.30	17.40
0009	80	PLYM	VOLA	225	2	0.16	2.24	407.80	0.80	21.54
0009	80	PLYM	VOLA	225	3	0.16	2.39	423.30	0.74	20.74
0009	80	PLYM	VOLA	225	4	0.17	2.34	419.30	0.69	20.94
0009	80	PLYM	VOLA	225	5	0.15	0.93	423.60	0.77	20.84
0010	80	BUIC	SKYH	231	1	0.03	0.67	391.90	0.37	22.57
0011	80	CUTL	CUTL	231	1	0.04	1.62	423.00	1.04	20.84
0011	80	OLDS	CUTL	231	2	0.03	0.88	395.30	0.86	22.35
0012	80	CHEV	CHEV	98	1	0.06	1.97	337.40	0.32	26.03
0013	80	CHEV	CHEV	98	1	0.18	6.24	314.70	0.08	27.28
0014	80	FORD	MUST	140	1	0.08	0.42	310.10	1.73	28.52
0015	80	CHEV	CHEV	98	1	0.07	3.15	308.10	0.09	28.31
0016	80	CHEV	CHEV	305	1	0.04	0.52	462.10	1.04	19.15
0017	80	OLDS	CUTL	231	1	0.06	3.74	393.70	0.73	22.18
0018	80	OLDS	STAR	151	1	0.05	2.26	338.80	0.82	25.89
0019	80	CHEV	CHEV	98	1	0.08	5.01	332.20	0.05	26.08
0020	80	BUIC	CENT	305	1	0.04	0.35	422.30	0.33	20.97
0021	80	BUIC	CENT	231	1	0.03	0.50	386.80	0.31	22.88
0022	80	BUIC	LESA	231	1	0.07	0.07	418.30	0.72	21.19
0023	80	CADI	MONT	231	1	0.10	0.01	503.80	0.71	17.59
0024	80	BUIC	SEVI	350	1	0.05	0.93	356.00	0.38	24.80
0025	80	BUIC	REGA	231	1	0.21	5.36	350.50	0.16	24.66
0026	80	BUIC	SKYH	231	1	0.09	2.90	317.40	0.02	27.52
0027	80	CHEV	CHEV	98	1	0.07	0.15	362.60	0.40	24.43
0028	80	FORD	LTD	351	1	0.02	0.12	350.10	0.46	25.32
0029	80	CHEV	CHEV	98	1	0.13	6.67	354.80	0.05	24.25

Reproduction of this document is prohibited without permission of the author.

APPENDIX E

LISTING OF HIGHWAY FUEL ECONOMY TEST EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE 02 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, 02 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. 02 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TFS DISCNCTD

VEHICLE NUMBER	MODEL YEAR	MAKE	MODEL	CID	SN	HC	CO	CO2	NOXC	FUEL ECON
0030	80	DATS	B10	146	1	0.28	4.02	354.50	0.16	24.52
0031	80	CHEV	CHEV	98	1	0.10	2.48	311.60	0.02	28.09
0032	80	CHEV	CHEV	98	1	0.61	17.59	292.90	0.88	27.50
0032	80	CHEV	CHEV	98	2	0.72	23.24	270.90	0.42	28.63
0032	80	CHEV	CHEV	98	3	0.05	1.23	304.20	0.20	28.96
0033	80	CHEV	CHEV	98	1	0.11	1.56	270.40	0.12	32.46
0034	80	BUIC	CENT	231	1	0.10	2.78	362.30	0.23	24.16
0035	80	CHEV	CHEV	98	1	0.17	3.10	248.30	0.05	34.96
0036	80	CHEV	CHEV	98	1	0.12	1.13	383.90	0.34	22.97
0037	80	MERC	STAM	351	1	0.11	1.10	365.80	0.45	24.21
0038	80	OLDS	CUTL	305	1	0.09	0.61	448.40	0.26	19.73
0039	80	BUIC	CENT	231	1	0.06	0.80	357.70	0.32	24.69
0040	80	AMC	CONC	258	1	1.02	1.02	389.90	0.34	22.65
0041	80	AMC	STAM	258	1	0.03	0.98	378.90	0.44	23.31
0042	80	FORD	LTD	351	1	0.08	0.14	363.00	0.52	24.40
0043	80	BUIC	LESA	231	1	0.04	0.96	351.40	1.03	25.12
0044	80	FORD	STAM	200	1	0.14	0.34	367.10	0.58	24.09
0045	80	OLDS	CUTL	305	1	0.05	1.31	446.70	0.29	19.76
0046	80	FORD	MUST	200	1	0.87	27.64	342.00	0.04	22.85
0047	80	FORD	MUST	200	2	0.16	0.14	356.40	0.45	24.83
0048	80	DATS	STAM	146	1	0.03	0.33	294.80	0.32	30.02
0049	80	BUIC	CENT	231	1	0.22	0.13	376.00	0.49	23.53
0050	80	FORD	FAIR	200	1	0.03	0.14	361.10	1.27	24.54
0051	80	FORD	LTD	351	1	0.10	0.33	353.70	0.53	25.01
0052	80	OLDS	CUTL	305	1	0.70	27.25	452.00	0.12	17.84
0053	80	FORD	FAIR	200	1	0.15	0.19	340.20	0.59	26.01
0054	80	FORD	MUST	200	1	0.08	0.18	354.50	0.41	24.98
0055	80	OLDS	CUTL	305	1	0.04	0.54	447.50	0.74	19.79
0056	80	CADI	SEVI	350	1	0.10	1.00	440.00	1.31	20.14
0057	80	LINC	CONT	351	1	0.20	1.00	386.50	0.69	22.83
0058	80	LINC	CONT	351	2	0.21	0.55	383.70	0.90	23.02
0058	80	CHEV	CAMA	305	1	0.07	0.93	458.20	0.56	19.28
0059	80	CHEV	CAMA	305	2	0.08	2.05	441.60	0.21	19.92
0060	80	FORD	FAIR	200	1	0.14	0.17	336.60	0.91	26.29
0061	80	FORD	FAIR	200	1	0.24	0.27	338.70	0.53	26.08
0061	80	FORD	STAM	351	1	0.16	0.37	365.80	0.59	24.18
0061	80	FORD	STAM	351	2	0.15	0.19	368.00	0.61	24.05
0061	80	FORD	STAM	351	3	0.10	0.17	351.60	0.50	25.18
0062	80	CHEV	CAMA	305	1	0.05	1.31	421.10	0.23	20.95

Reproduced from
best available copy.

APPENDIX E

LISTING OF HIGHWAY FUEL ECONOMY TEST EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE

FUEL ECONOMY IN MILES PER GALLON

SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLE, SN=3, REPLACE O2 SNR, SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN=5, AFTER MAJOR TUNE-UP, SN=6, ECM DISCNCTD, SN=7, O2 SNR DISCNCTD, SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

VEHICLE NUMBER	MODEL YEAR	MAKE	MODEL	CID	SN	HC	CO	CO2	NOXC	FUEL ECON
0063	80	CADI	ELDO	350	1	0.08	0.06	444.20	0.47	19.95
0064	80	CADI	BEVI	350	1	0.08	0.03	428.60	0.60	20.68
0065	80	FORD	FAIR	200	1	0.21	0.37	402.90	0.29	21.94
0066	80	FORD	STAW	200	1	0.42	1.10	400.10	1.17	22.00
0067	80	FORD	STAW	200	2	0.36	0.65	380.00	1.24	23.20
0068	80	CADI	DEVI	368	1	0.06	0.04	443.60	1.62	19.98
0069	80	CADI	BEVI	350	1	0.10	0.02	433.40	1.02	20.45
0070	80	CADI	BEVI	350	1	0.07	0.05	437.10	0.60	20.28
0071	80	CADI	ELDO	350	1	0.27	7.52	447.10	0.68	19.29
0072	80	CHEV	CAMA	305	1	0.05	0.07	449.20	0.77	19.73
0073	80	LINC	HRA6	351	1	0.13	1.96	396.50	0.97	22.17
0074	80	DATS	B10	146	1	0.14	2.73	353.70	0.25	24.74
0075	80	OLDS	CUTL	305	1	0.03	0.36	424.90	0.93	20.84
0076	80	CHRY	CORD	318	1	0.03	0.79	376.00	0.38	23.50
0077	80	CHEV	CHEI	98	1	0.05	0.79	296.90	0.27	29.73
0078	80	CHEV	CHEI	98	2	0.07	1.15	290.50	0.10	30.32
0079	80	OLDS	CUTL	305	1	0.04	0.20	426.00	0.62	20.79
0080	80	OLDS	CUTL	305	1	0.04	0.34	426.00	0.75	20.80
0081	80	OLDS	CUTL	305	1	0.03	0.20	468.40	0.74	18.92
0082	80	DODG	OMNI	105	1	0.02	0.04	245.00	0.68	36.18
0083	80	DATS	280Z	168	1	0.07	0.62	297.80	0.61	29.67
0084	80	PLYM	HORI	105	1	0.03	0.02	292.40	1.12	30.32
0085	80	CHRY	CORD	318	1	0.02	0.88	381.80	0.59	23.14
0086	80	CHRY	CORD	318	2	0.02	0.63	402.80	0.38	21.96
0087	80	PLYM	HORI	105	1	0.04	0.06	294.60	1.10	30.08
0088	80	PLYM	HORI	105	2	0.03	0.28	303.10	1.03	29.21
0089	80	PLYM	HORI	105	3	0.03	0.12	303.80	1.01	29.16
0090	80	PLYM	HORI	105	4	0.04	0.06	298.10	1.19	29.73
0091	80	PLYM	HORI	105	5	0.04	0.03	289.70	1.27	30.59
0092	80	CADI	DEVI	368	1	0.07	0.11	434.60	2.02	20.39
0093	80	CADI	DEVI	368	2	0.08	0.03	445.70	2.29	19.88
0094	80	CADI	DEVI	368	3	0.08	0.04	458.80	2.18	19.32
0095	80	CADI	SEVI	350	1	0.12	0.12	410.10	0.41	21.59
0096	80	CADI	SEVI	350	1	0.02	0.06	296.50	0.90	29.89
0097	80	PLYM	HORI	105	1	0.10	0.00	417.10	2.02	21.25
0098	80	CADI	SEVI	350	1	0.02	0.23	403.70	0.69	21.95
0099	80	CHRY	LEBA	225	1	0.02	0.30	442.00	0.70	20.02
0100	80	CADI	DEVI	368	1	0.17	0.03	416.50	0.57	21.28
0101	80	CADI	SEVI	350	1	0.07	0.00	426.70	0.69	20.77
0102	80	CADI	ELDO	350	1	0.07	0.03	426.70	0.69	20.77
0103	80	CHEV	MAL1	231	1	0.07	2.13	340.70	0.12	25.76

Reproduced from
best available copy.

APPENDIX E LISTING OF HIGHWAY FUEL ECONOMY TEST EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS PER MILE
FUEL ECONOMY IN MILES PER GALLON

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE NUMBER	MODEL YEAR	MAKE	MODEL	CID	SN	HC	CO	CO2	NOXC	FUEL ECON
0094	80	CHEV	CAPR	231	1	0.01	0.34	358.20	0.27	24.72
0095	80	CHEV	HALI	231	1	0.12	3.12	339.20	0.32	25.75
0095	80	CHEV	HALI	231	2	0.11	2.90	338.00	0.40	25.84
0096	80	CADI	FLEE	368	1	0.06	0.14	468.90	0.94	18.89
0097	80	CADI	FLEE	368	2	0.08	0.08	459.20	0.43	19.30
0098	80	CADI	DEVI	368	1	0.07	0.03	449.60	1.29	19.71
0098	80	CADI	FLEE	368	1	0.06	0.08	439.10	1.51	20.18
0098	80	CADI	FLEE	368	6	0.25	23.56	454.10	0.34	18.03
0098	80	CADI	FLEE	368	7	0.23	9.94	458.40	0.71	18.68
0098	80	CADI	FLEE	368	8	0.20	8.93	457.30	0.75	18.83
0099	80	CADI	FLEE	368	9	0.06	0.00	435.90	1.90	20.33
0100	80	FORD	LTD	351	1	0.10	0.27	374.30	0.40	23.44
0101	80	FORD	LTD	351	1	0.04	0.00	366.60	0.84	24.18
0102	80	FORD	LTD	351	1	0.11	0.08	356.90	0.51	24.82
0102	80	CADI	DEVI	368	1	0.05	0.02	441.40	1.24	20.08
0102	80	CADI	DEVI	368	6	0.43	42.87	449.80	0.23	17.10
0102	80	CADI	DEVI	368	7	0.25	14.26	466.50	0.52	18.11
0102	80	CADI	DEVI	368	8	0.27	11.67	457.70	0.59	18.60
0103	80	CADI	DEVI	368	9	0.05	0.01	440.50	1.23	20.13
0104	80	CADI	SEVI	350	1	0.07	0.09	423.10	1.07	20.94
0105	80	CADI	SCIR	97	1	0.15	1.08	240.00	0.06	36.62
0106	80	CADI	SEVI	350	1	0.13	0.35	429.20	0.94	20.61
0107	80	DODG	OPNI	105	1	0.02	0.11	280.20	1.23	31.62
0108	80	PLYM	VOLA	225	1	0.06	0.62	411.80	0.85	21.47
0109	80	VLK	SCIR	97	1	0.02	0.01	217.60	0.89	40.74
0110	80	CHRY	CORD	318	1	0.03	0.47	379.60	0.41	23.31
0110	80	CHRY	CORD	318	1	0.06	1.87	358.90	0.80	24.47
0110	80	CHRY	CORD	318	2	0.06	1.75	348.40	0.88	25.22
0110	80	CHRY	CORD	318	3	0.06	1.75	348.30	0.93	25.23
0111	80	CHRY	CORD	318	4	0.05	1.13	351.60	0.91	25.08
0112	80	DODG	MIRA	131	1	0.02	0.37	373.40	0.40	23.71
0113	80	AUDI	5000	97	1	0.02	0.17	363.90	0.36	24.35
0114	80	AUDI	4000	97	1	0.02	0.12	270.30	0.13	32.78
0114	80	CADI	DEVI	368	1	0.07	0.12	486.80	0.31	18.20
0115	80	CADI	DEVI	368	0	0.22	5.14	488.70	0.65	17.83
0115	80	CADI	DEVI	368	1	0.07	0.00	459.90	1.60	19.27
0115	80	CADI	DEVI	368	0	0.31	10.26	473.60	0.60	18.07
0116	80	CADI	COUP	368	1	0.05	0.00	452.20	2.28	19.60

APPENDIX F

LISTING OF BAGGED IDLE EMISSIONS

ON INDIVIDUAL VEHICLES

Reproduced from
best available copy.

APPENDIX F
LISTING OF BAGGED IDLE EMISSIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SENS; SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SENS DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN; O2 SENS DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEH NO	YR	MAKE	MODEL	CID	SN	HC	CO	CO2	NOXC
0001	80	PONT	FIRE	305	1	1.76	24.5	264.7	0.03
0001	80	PONT	FIRE	305	2	0.16	0.4	284.1	0.07
0001	80	PONT	FIRE	305	3	0.22	0.5	328.0	0.08
9002	79	PLYM	VOLA	225	1	0.24	0.5	204.3	0.22
9003	79	PLYM	VOLA	225	1	1.49	1.3	227.7	0.12
9003	79	PLYM	VOLA	225	2	0.08	0.0	183.1	0.03
9003	79	PLYM	VOLA	225	2	0.04	0.2	238.9	0.00
0004	80	VOLK	RABB	97	1	2.17	64.2	302.9	0.08
0005	80	CHEV	IMPA	305	1	0.03	0.0	319.7	0.32
0005	80	CHEV	IMPA	305	2	0.04	0.3	324.2	0.33
0005	80	CHEV	IMPA	305	3	0.00	0.0	200.5	0.35
9006	79	DODG	STAW	225	1	0.11	0.6	190.4	0.14
0007	80	CHEV	MONT	231	1	0.06	0.1	212.6	0.25
9008	79	PLYM	VOLA	225	1	0.12	0.6	217.9	0.24
9008	79	PLYM	VOLA	225	2	1.98	4.6	254.7	0.10
0009	80	PLYM	VOLA	225	2	2.65	10.6	206.3	0.22
0009	80	PLYM	VOLA	225	3	1.01	6.6	204.3	0.26
0009	80	PLYM	VOLA	225	4	0.76	7.5	204.9	0.20
0009	80	PLYM	VOLA	225	5	1.98	13.5	169.8	0.29
0010	80	BUIC	SKYH	231	1	0.07	0.6	210.7	0.03
0011	80	OLDS	CUTL	231	1	0.04	0.3	161.5	0.04
0011	80	OLDS	CUTL	98	2	0.03	0.1	179.4	0.30
0012	80	CHEV	CHEV	98	1	0.05	0.3	126.4	0.13
0013	80	CHEV	CHEV	98	1	0.22	0.1	124.4	0.04
0014	80	FORD	MUST	140	1	0.22	0.2	164.6	0.20
0015	80	CHEV	CHEV	98	1	0.03	0.3	261.1	0.11
0016	80	CHEV	MONT	305	1	0.11	0.6	214.5	0.07
0017	80	OLDS	CUTL	231	1	0.08	0.6	190.7	0.11
0018	80	OLDS	STAR	151	1	0.02	0.0	147.5	0.22
0019	80	CHEV	CHEV	98	1	0.02	0.2	176.9	0.09
0020	80	BUIC	CENT	305	1	0.29	1.4	249.9	0.09
0021	80	BUIC	LESA	231	1	0.32	0.9	176.9	0.09
0022	80	CHEV	MONT	231	1	0.63	1.0	198.7	0.16
0023	80	CADI	SEVI	350	1	0.31	0.4	332.2	0.09
0024	80	BUIC	REGA	231	1	0.33	2.2	181.2	0.12
0025	80	BUIC	SKYH	231	1	0.62	2.0	207.1	0.04
0026	80	CHEV	CHEV	98	1	0.35	1.2	140.2	0.08
0027	80	FORD	LTD	351	1	0.57	5.4	362.2	0.12
0028	80	BUIC	CENT	231	1	0.04	0.1	196.5	0.09
0029	80	CHEV	CHEV	98	1	0.24	0.6	128.5	0.14

Preceding page blank

APPENDIX F

LISTING OF BAGGED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAHS

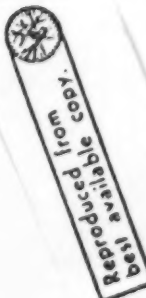
SN-1. AS RECEIVED; SN-2. AFTER CORR. OF OBVIOUS DISABLING; SN-3. REPLACE O2 SNR;

SN-4. AFTER CORR. OF OTHER DISABLING OR MALADJ; SN-5. AFTER MAJOR TUNE-UP;

SN-6. ECM DISCNCTD; SN-7. O2 SNR DISCNCTD;

SN-8. BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9. CTS DISCNCTD; SN-0. TPS DISCNCTD

VEH NO	YR	MAKE	MODEL	CID	SN	HC	CO	CO2	NOXC
0030	80	DATS	B10	146	1	0.25	0.5	160.2	0.00
0031	80	CHEV	CHEV	98	1	0.03	0.0	184.3	0.26
0032	80	CHEV	CHEV	98	1	0.01	0.1	149.2	0.29
0032	80	CHEV	CHEV	98	2	0.05	0.4	177.0	0.50
0032	80	CHEV	CHEV	98	3	0.04	0.0	270.9	3.20
0033	80	CHEV	CHEV	98	1	0.10	0.3	111.7	0.00
0034	80	BUIC	CENT	231	1	0.13	1.3	368.6	0.37
0035	80	CHEV	CHEV	98	1	0.06	0.7	109.9	0.00
0036	80	MERC	STAM	351	1	0.37	9.5	369.6	0.13
0037	80	MERC	MARQ	351	1	0.72	18.4	361.2	0.05
0038	80	OLDS	CUTL	305	1	0.05	0.2	306.5	0.17
0039	80	BUIC	CENT	231	1	0.05	0.4	164.6	0.02
0040	80	AMC	CONC	258	1	0.47	2.5	209.1	0.20
0041	80	AMC	STAM	258	1	0.87	3.0	218.3	0.06
0042	80	FORD	LTD	351	1	0.30	2.9	292.9	0.21
0043	80	BUIC	LESA	231	1	0.36	0.8	144.6	0.03
0044	80	FORD	STAM	200	1	0.04	0.1	195.9	0.26
0045	80	OLDS	CUTL	305	1	0.10	0.8	285.0	0.10
0046	80	FORD	MUST	200	1	0.03	0.0	189.2	0.26
0046	80	FORD	MUST	200	2	0.16	0.5	186.2	0.23
0047	80	DATS	B10	146	1	0.03	0.1	128.2	0.00
0048	80	FORD	STAM	200	1	0.06	0.3	171.4	0.15
0049	80	BUIC	CENT	231	1	0.12	1.3	201.2	0.02
0050	80	FORD	FAIR	200	1	0.23	0.6	170.8	0.16
0051	80	FORD	LTD	351	1	1.23	15.8	408.7	0.13
0052	80	OLDS	CUTL	305	1	0.18	1.2	220.2	0.08
0053	80	FORD	FAIR	200	1	0.04	0.0	200.1	0.07
0054	80	FORD	MUST	200	1	0.02	0.0	172.4	0.19
0055	80	OLDS	CUTL	305	1	0.07	0.6	302.9	0.24
0056	80	CADI	SEVI	350	1	0.22	0.2	309.4	0.13
0057	80	LINC	CONT	351	1	0.93	18.2	580.8	0.57
0057	80	LINC	CONT	351	2	0.67	9.0	338.2	0.14
0058	80	CHEV	CAMA	305	1	0.41	0.9	330.9	0.17
0058	80	CHEV	CAMA	305	2	0.31	1.9	326.4	0.15
0059	80	FORD	FAIR	200	1	0.04	0.1	172.4	0.17
0060	80	FORD	FAIR	200	1	0.12	0.6	174.9	0.27
0061	80	FORD	STAM	351	1	0.57	16.7	362.5	0.12
0061	80	FORD	STAM	351	2	0.52	9.0	359.0	0.17
0061	80	FORD	STAM	351	3	0.57	5.6	343.5	0.28
0062	80	CHEV	CAMA	305	1	0.08	0.0	292.4	0.12



APPENDIX F

LISTING OF BAGGED IDLE EMISSIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAHS

SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLE, SN=3, REPLACE O2 SNR,
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN=5, AFTER MAJOR TUNE-UP,
SN=6, ECM DISCNCTD, SN=7, O2 SNR DISCNCTD,
SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD, SN=9, CTS DISCNCTD, SN=O, TPS DISCNCTD

VEH NO	YR	MAKE	MODEL	CID	SN	HC	CO	CO2	NOXC
0063	80	CADI	ELDO	350	1	0.12	0.3	370.5	0.10
0064	80	CADI	SEVI	350	1	0.13	0.4	370.8	0.15
0065	80	FORD	FAIR	200	1	0.09	0.3	207.5	0.22
0066	80	FORD	STAN	200	1	0.40	0.4	183.8	0.15
0067	80	FORD	STAN	200	2	0.38	0.7	193.0	0.16
0068	80	CADI	DEVI	368	1	0.28	1.9	350.7	0.62
0069	80	CADI	SEVI	350	1	0.10	0.1	316.5	0.10
0070	80	CADI	SEVI	350	1	0.12	0.0	343.1	0.03
0071	80	CADI	ELDO	350	1	0.14	0.3	322.3	0.03
0072	80	CHEV	CAHA	305	1	0.08	0.7	259.6	0.17
0073	80	LINC	MRK6	351	1	0.40	11.6	350.5	0.11
0074	80	DATS	B10	146	1	0.07	0.3	127.1	0.00
0075	80	OLDS	CUTL	305	1	0.05	0.4	256.4	0.13
0076	80	CHRY	CORD	318	1	0.06	0.0	316.5	0.10
0077	80	CHEV	CHET	98	1	0.01	0.0	116.8	0.10
0078	80	CHEV	CHET	98	2	0.01	0.0	121.3	0.11
0079	80	OLDS	CUTL	305	1	0.07	1.0	321.8	0.26
0080	80	OLDS	CUTL	305	1	0.08	1.3	314.8	0.24
0081	80	OLDS	CUTL	305	1	0.03	0.0	293.2	0.19
0082	80	DATS	DMNI	105	1	0.11	0.2	151.0	0.03
0083	80	PLYM	HORI	168	1	0.09	1.4	195.1	0.02
0084	80	CHRY	CORD	105	1	0.03	0.0	134.1	0.06
0085	80	CHRY	CORD	318	1	0.24	0.7	342.9	0.42
0086	80	PLYM	HORI	105	2	0.07	0.6	270.4	0.17
0087	80	PLYM	HORI	105	1	0.28	0.4	169.1	0.04
0088	80	PLYM	HORI	105	2	0.59	0.4	178.3	0.02
0089	80	PLYM	HORI	105	3	0.84	0.8	175.7	0.03
0090	80	PLYM	HORI	105	4	0.49	0.2	168.4	0.03
0091	80	PLYM	HORI	105	5	0.09	0.0	130.6	0.01
0092	80	CADI	DEVI	368	1	0.13	0.0	302.2	0.63
0093	80	CADI	DEVI	368	2	0.39	1.8	303.7	0.72
0094	80	CADI	SEVI	350	3	0.45	0.4	303.3	0.61
0095	80	CADI	SEVI	350	1	0.19	0.4	330.2	0.02
0096	80	PLYM	HORI	105	1	0.07	0.0	183.6	0.02
0097	80	CADI	SEVI	350	1	0.18	0.4	330.1	0.09
0098	80	CHRY	LEBA	225	1	0.39	0.4	194.2	0.35
0099	80	CADI	DEVI	368	1	0.15	0.0	275.8	0.28
0100	80	CADI	SEVI	350	1	0.20	0.0	331.8	0.07
0101	80	CADI	ELDO	350	1	0.12	0.1	364.3	0.04
0102	80	CHEV	MALI	231	1	0.20	2.0	343.2	0.15

Reproduced from
best available copy.

APPENDIX F

LISTING OF BAGGED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

EXHAUST EMISSIONS IN GRAMS

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE Q2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, Q2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. Q2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEH NO	YR	MAKE	MODEL	CID	SN	HC	CO	CO2	NOXC
0094	80	CHEV	CAPR	231	1	0.29	1.6	211.4	0.02
0095	80	CHEV	MAL1	231	1	0.22	1.6	193.5	0.03
0095	80	CHEV	MAL1	231	2	0.51	2.7	355.0	2.10
0096	80	CADI	FLEE	368	1	0.15	1.4	318.6	0.23
0096	80	CADI	FLEE	368	2	1.07	3.3	313.9	0.16
0097	80	CADI	DEVI	368	1	0.64	2.6	325.5	0.09
0098	80	CADI	FLEE	368	1	0.64	1.6	361.3	0.40
0098	80	CADI	FLEE	368	6	0.07	0.1	297.8	0.12
0098	80	CADI	FLEE	368	7	0.66	1.5	232.4	0.12
0098	80	CADI	FLEE	368	8	0.69	1.6	260.5	0.13
0098	80	CADI	FLEE	368	9	0.80	0.7	206.3	0.06
0099	80	FORD	LTD	351	1	0.66	10.8	588.2	1.43
0100	80	FORD	LTD	351	1	0.40	2.4	325.2	0.21
0101	80	FORD	LTD	351	1	0.73	12.4	349.3	0.07
0102	80	CADI	DEVI	368	1	0.05	0.0	283.3	0.10
0102	80	CADI	DEVI	368	6	0.79	5.8	322.5	0.11
0102	80	CADI	DEVI	368	7	0.76	2.3	293.3	0.18
0102	80	CADI	DEVI	368	8	0.68	2.4	307.8	0.14
0102	80	CADI	DEVI	368	9	0.58	0.9	259.3	0.18
0103	80	CADI	SEVI	350	1	0.28	0.1	303.0	0.09
0104	80	VOLK	SCIR	97	1	0.17	0.3	150.2	0.00
0105	80	CADI	SEVI	350	1	0.36	0.1	339.2	0.19
0106	80	DODG	OHNI	105	1	0.34	0.3	162.7	0.06
0107	80	PLYM	VOLA	225	1	0.74	3.3	164.2	0.13
0108	80	VOLK	SCIR	97	1	0.04	0.0	176.6	0.08
0109	80	CHRY	CORD	318	1	0.11	0.8	295.2	0.05
0110	80	CHRY	CORD	318	1	0.42	1.1	220.0	0.09
0110	80	CHRY	CORD	318	2	0.28	0.9	209.4	0.09
0110	80	CHRY	CORD	318	3	0.37	0.7	194.6	0.05
0110	80	CHRY	CORD	318	4	0.61	1.0	233.1	0.05
0111	80	DODG	MIRA	318	1	0.16	0.6	271.4	0.04
0112	80	AUDI	5000	131	1	0.23	0.5	222.3	0.02
0113	80	AUDI	4000	97	1	0.06	0.1	173.9	0.03
0114	80	CADI	DEVI	368	1	0.10	0.7	292.0	0.93
0114	80	CADI	DEVI	368	0	0.73	2.2	319.1	0.17
0115	80	CADI	DEVI	368	1	0.53	1.8	339.1	0.45
0115	80	CADI	DEVI	368	0	0.56	6.6	369.8	0.19
0116	80	CADI	COUP	368	1	0.29	1.8	241.3	0.07

APPENDIX G

LISTING OF 50 MPH CRUISE TEST RESULTS

ON INDIVIDUAL VEHICLES



Reproduced from
best available copy.

APPENDIX D

LISTING OF 50 MPH CRUISE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISABL, SN-3, REPLACE Q2 SNR,
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECM DISCNCTD, SN-7, Q2 SNR DISCNCTD,
SN-8, BATT DISCNCTD 10 MIN, Q3 SNR DISCNCTD, SN-9, CTS DISCNCTD, SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CTD	SN	HC, PPMEX	CO, PCT	NO, PPM
0001	80	PONT	FIRE	305	1	129	4.32	89
0001	80	PONT	FIRE	305	2	0	0.00	179
0001	80	PONT	FIRE	305	3	3	0.00	120
9002	79	PLYM	VOLA	225	1	8	0.04	242
9003	79	PLYM	VOLA	225	1	0	0.10	66
9003	79	PLYM	VOLA	225	2	1	0.02	140
9004	80	VOLK	RABB	97	1	9	0.14	14
0005	80	CHEV	IMPA	305	1	171	4.64	95
0005	80	CHEV	IMPA	305	2	4	0.01	620
0005	80	CHEV	IMPA	305	3	4	0.01	352
0005	80	DODG	STAW	225	1	1	0.02	177
9006	79	CHEV	MONT	231	1	9	0.00	60
0007	80	PLYM	VOLA	225	1	0	0.01	119
9008	79	PLYM	VOLA	225	2	3	0.01	138
9008	80	PLYM	VOLA	225	1	9	0.09	71
0009	80	PLYM	VOLA	225	2	9	0.12	74
0009	80	PLYM	VOLA	225	3	8	0.10	82
0009	80	PLYM	VOLA	225	4	13	0.10	85
0009	80	PLYM	VOLA	225	5	14	0.22	89
0009	80	BUIC	SKYH	231	1	3	0.00	262
0010	80	OLDS	CUTL	231	1	0	0.01	332
0011	80	OLDS	CUTL	231	2	0	0.02	201
0011	80	CHEV	CHEV	98	1	0	0.05	14
0012	80	CHEV	CHEV	98	1	0	0.05	10
0013	80	FORD	MUST	140	1	8	0.01	513
0014	80	CHEV	CHEV	98	1	0	0.00	51
0015	80	CHEV	MONT	305	1	0	0.01	59
0016	80	OLDS	CUTL	231	1	0	0.01	228
0017	80	OLDS	STAR	151	1	0	0.00	117
0018	80	CHEV	CHEV	98	1	1	0.02	8
0019	80	BUIC	CENT	305	1	0	0.01	60
0020	80	BUIC	LESA	231	1	92	0.02	2
0021	80	CHEV	MONT	231	1	5	0.00	52
0023	80	CADI	BEVI	350	1	3	0.01	99
0024	80	BUIC	REGA	231	1	2	0.01	81
0025	80	BUIC	SKYH	231	1	1	0.02	5
0026	80	CHEV	CHEV	98	1	0	0.01	0
0027	80	FORD	LTD	351	1	12	0.02	89
0028	80	BUIC	CENT	231	1	0	0.02	53
0029	80	CHEV	CHEV	98	1	0	0.03	1

Preceding page blank



Reproduced from
Navy

APPENDIX Q

LISTING OF 50 MPH CRUISE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABL; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	HC, PPMEX	CO, PCT	NO, PPM
0030	80	DATS	B10	146	1	15.	0.15	46.
0031	80	CHEV	CHEV	98	1	7.	0.11	3.
0032	80	CHEV	CHEV	98	1	57.	0.91	95.
0032	80	CHEV	CHEV	98	2	66.	1.51	24.
0032	80	CHEV	CHEV	98	3	1.	0.02	8.
0033	80	CHEV	CHEV	98	1	3.	0.01	1.
0034	80	BUIC	CENT	231	1	4.	0.10	65.
0035	80	CHEV	CHEV	98	1	8.	0.02	1.
0036	80	MERC	STAN	351	1	8.	0.00	75.
0037	80	MERC	MARG	351	1	8.	0.01	87.
0038	80	OLDS	CUTL	305	1	4.	0.07	1.
0039	80	BUIC	CENT	231	1	5.	0.07	6.
0040	80	ARC	CONC	258	1	3.	0.01	136.
0041	80	ARC	STAN	258	1	0.	0.01	85.
0042	80	FORD	LTD	351	1	4.	0.02	58.
0043	80	BUIC	LESA	231	1	1.	0.02	365.
0044	80	FORD	STAN	200	1	6.	0.02	152.
0045	80	OLDS	CUTL	305	1	0.	0.02	97.
0046	80	FORD	MUST	200	1	51.	1.14	14.
0046	80	FORD	MUST	200	2	7.	0.02	85.
0047	80	DATS	B10	146	1	0.	0.03	361.
0048	80	FORD	STAN	200	1	33.	0.02	164.
0049	80	BUIC	CENT	231	1	0.	0.02	444.
0050	80	FORD	FAIR	200	1	4.	0.02	66.
0051	80	FORD	LTD	351	1	9.	0.01	73.
0052	80	OLDS	CUTL	305	1	7.	0.06	0.
0053	80	FORD	FAIR	200	1	1.	0.01	119.
0054	80	FORD	MUST	200	1	1.	0.01	153.
0055	80	OLDS	CUTL	305	1	0.	0.02	61.
0056	80	CADI	BEVI	350	1	10.	0.03	183.
0057	80	LINC	CONT	351	1	13.	0.01	206.
0058	80	CHEV	CAMA	305	2	34.	0.02	251.
0059	80	CHEV	CAMA	305	1	1.	0.02	78.
0060	80	FORD	FAIR	200	2	4.	0.12	12.
0061	80	FORD	FAIR	200	1	2.	0.00	162.
0061	80	FORD	STAN	351	1	45.	0.04	204.
0061	80	FORD	STAN	351	1	29.	0.02	109.
0061	80	FORD	STAN	351	2	29.	0.03	143.
0062	80	CHEV	CAMA	305	3	14.	0.02	91.
0062	80	CHEV	CAMA	305	1	3.	0.07	29.

Reproduced from
best available copy.

APPENDIX Q

LISTING OF 50 MPH CRUISE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEHICLE	YR	MAKE	MODEL	CID	SN	HC, PPM/EX	CO, PCT	NO, PPM
0063	80	CADI	ELDO	350	1	9	0.03	41.
0064	80	CADI	SEVI	350	1	7.	0.04	162.
0065	80	FORD	FAIR	200	1	24	0.03	88.
0066	80	FORD	STAN	200	1	40.	0.07	326.
0066	80	FORD	STAN	200	2	37.	0.04	356.
0067	80	CADI	DEVI	368	1	3.	0.02	225.
0068	80	CADI	SEVI	350	1	10.	0.03	123.
0069	80	CADI	SEVI	350	1	7.	0.03	85.
0070	80	CADI	ELDO	350	1	35.	0.09	326.
0071	80	CHEV	CAMA	305	1	2.	0.02	202.
0072	80	LINC	MRK6	351	1	14.	0.02	145.
0073	80	DATS	810	146	1	9.	0.13	112.
0074	80	OLDS	CUTL	305	1	0.	0.02	215.
0075	80	CHRY	CORD	318	1	0.	0.02	49.
0076	80	CHEV	CHEV	98	1	0.	0.10	5.
0076	80	CHEV	CHEV	98	2	2.	0.02	241.
0077	80	OLDS	CUTL	305	1	0.	0.02	182.
0078	80	OLDS	CUTL	305	1	0.	0.02	174.
0079	80	OLDS	CUTL	305	1	0.	0.02	40.
0080	80	DODG	DPNI	105	1	1.	0.01	60.
0081	80	DATS	280Z	168	1	1.	0.06	408.
0082	80	PLYM	HORI	105	1	4.	0.02	137.
0083	80	CHRY	CORD	318	1	1.	0.02	47.
0083	80	CHRY	CORD	318	2	0.	0.02	9.
0084	80	PLYM	HORI	105	1	0.	0.04	154.
0084	80	PLYM	HORI	105	2	0.	0.01	372.
0084	80	PLYM	HORI	105	3	0.	0.02	373.
0084	80	PLYM	HORI	105	4	0.	0.01	299.
0084	80	PLYM	HORI	105	5	4.	0.01	243.
0085	80	CADI	DEVI	368	1	9.	0.02	381.
0085	80	CADI	DEVI	368	2	9.	0.02	365.
0085	80	CADI	DEVI	368	3	11.	0.02	398.
0086	80	CADI	SEVI	350	1	10.	0.04	47.
0087	80	PLYM	HORI	105	1	3.	0.02	131.
0088	80	CADI	SEVI	350	1	17.	0.02	332.
0089	80	CHRY	LEBA	225	1	1.	0.04	56.
0090	80	CADI	DEVI	368	1	21.	0.03	125.
0091	80	CADI	SEVI	350	1	1.	0.02	63.
0092	80	CADI	ELDO	350	1	7.	0.04	103.
0093	80	CHEV	MALI	231	1	4.	0.12	1.

APPENDIX Q

LISTING OF 50 MPH CRUISE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISAB, SN=3, REPLACE O2 SNBR,
SN=4, AFTER CORR. OF OTHER DISAB OR MALADJ, SN=5, AFTER MAJOR TUNE-UP,
SN=6, ECM DISCNCTD, SN=7, O2 SNBR DISCNCTD,
SN=8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	HC, PPM*EX	CO, PCT	NO, PPM
0094	80	CHEV	CAPR	231	1	0.	0.04	1.
0095	80	CHEV	MALI	231	1	3.	0.12	15.
0095	80	CHEV	MALI	231	2	17.	0.25	43.
0096	80	CADI	FLEE	368	1	3.	0.01	101.
0096	80	CADI	FLEE	368	2	5.	0.02	55.
0097	80	CADI	DEVI	368	1	9.	0.02	200.
0098	80	CADI	FLEE	368	1	7.	0.01	236.
0098	80	CADI	FLEE	368	4	23.	0.71	77.
0098	80	CADI	FLEE	368	7	8.	0.33	142.
0098	80	CADI	FLEE	368	8	18.	0.31	160.
0098	80	CADI	FLEE	368	9	8.	0.02	259.
0099	80	FORD	FLEE	351	1	3.	0.01	99.
0100	80	FORD	LTD	351	1	7.	0.01	84.
0101	80	FORD	LTD	351	1	9.	0.02	106.
0102	80	CADI	DEVI	368	1	10.	0.02	211.
0102	80	CADI	DEVI	368	6	18.	1.66	47.
0102	80	CADI	DEVI	368	7	34.	0.50	127.
0102	80	CADI	DEVI	368	8	22.	0.43	159.
0102	80	CADI	DEVI	368	9	6.	0.02	180.
0103	80	CADI	SEVI	350	1	8.	0.02	172.
0104	80	VOLK	SCIR	97	1	8.	0.06	24.
0105	80	CADI	SEVI	350	1	21.	0.05	155.
0106	80	DODG	SEVI	105	1	0.	0.02	395.
0107	80	PLYM	VOLA	225	1	6.	0.10	105.
0108	80	VOLK	SCIR	97	1	0.	0.02	581.
0109	80	CHRY	CORD	318	1	4.	0.09	14.
0110	80	CHRY	CORD	318	1	4.	0.01	183.
0110	80	CHRY	CORD	318	2	5.	0.02	230.
0110	80	CHRY	CORD	318	3	5.	0.02	182.
0110	80	CHRY	CORD	318	4	4.	0.02	101.
0111	80	CHRY	CORD	318	1	0.	0.03	13.
0112	80	DODG	MIRA	131	1	0.	0.02	298.
0113	80	AUDI	5000	97	1	0.	0.02	523.
0114	80	CADI	4000	368	1	2.	0.03	21.
0114	80	CADI	DEVI	368	0	17.	0.02	96.
0115	80	CADI	DEVI	368	1	7.	0.33	363.
0115	80	CADI	DEVI	368	0	27.	0.02	160.
0116	80	CADI	COUP	368	1	4.	0.38	284.
0116	80	CADI	COUP	368	1	4.	0.01	



Reproduced from
Best available copy.

APPENDIX H

LISTING OF FOUR-SPEED IDLE TEST RESULTS

ON INDIVIDUAL VEHICLES

Reproduced from
best available copy.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNSR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNSR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN; O2 SNSR DISCNCTD;
SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO. PPM
0001	80	PONT	FIRE	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	95 123 113 119	2.24 5.05 3.91 3.40	27. 49. 30. 31.
0001	80	PONT	FIRE	305	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	94 266 71 39	0.42 1.72 0.88 0.34	3. 6. 3. 3.
0001	80	PONT	FIRE	305	3	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0 0 0 0	0.01 0.01 0.01 0.01	17. 75. 24. 21.
9002	79	PLYM	VOLA	225	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	50 8 20 24	0.02 0.04 0.04 0.02	13. 47. 26. 16.
9003	79	PLYM	VOLA	225	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	14 0 0 0	0.02 0.06 0.02 0.02	32. 43. 34. 37.
9003	79	PLYM	VOLA	225	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0 2 0 0	0.00 0.01 0.00 0.00	4. 32. 14. 26.
0004	80	VOLK	RABB	97	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3 0 4 0	0.07 0.11 0.07 0.00	3. 0. 0. 0.



Reproduced from
Best available copy

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMHX	CO, PCT	NO, PPM
0005	80	CHEV	IMPA	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	145. 136. 164. 227.	3.33 4.40 4.14 7.94	49. 86. 50. 49.
0005	80	CHEV	IMPA	305	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 7. 0. 5.	0.00 0.00 0.00 0.00	27. 123. 53. 63.
0005	80	CHEV	IMPA	305	3	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 2. 0. 0.	0.01 0.01 0.01 0.01	34. 102. 26. 92.
9006	79	DODG	STAN	225	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	6. 16. 0. 8.	0.00 0.02 0.00 0.01	20. 41. 23. 70.
0007	80	CHEV	MCNT	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	34. 10. 6. 7.	0.01 0.00 0.01 0.03	14. 42. 46. 74.
9008	79	PLYM	VOLA	225	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	15. 8. 12. 11.	0.03 0.04 0.03 0.04	34. 49. 37. 53.
9008	79	PLYM	VOLA	225	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 1. 1.	0.00 0.01 0.00 0.01	11. 29. 13. 21.

Reproduced from
best available copy.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN; O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMHX	CO, PCT	NO, PPM
0009	80	PLYM	VOLA	225	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	25. 35. 16. 17.	0.07 0.19 0.07 0.09	36. 50. 38. 50.
0009	80	PLYM	VOLA	225	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	19. 33. 9. 129.	0.05 0.31 0.07 0.77	8. 27. 6. 23.
0009	80	PLYM	VOLA	225	3	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	9. 33. 6. 34.	0.03 0.49 0.04 0.10	12. 31. 13. 29.
0009	80	PLYM	VOLA	225	4	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	5. 15. 2. 20.	0.02 0.19 0.02 0.05	10. 35. 9. 54.
0009	80	PLYM	VOLA	225	5	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	69. 57. 137. 154.	0.08 0.67 0.98 1.29	7. 24. 12. 23.
0010	80	BUIC	SKYH	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	126. 1. 17. 113.	0.20 0.01 0.05 0.04	4. 63. 4. 6.
0011	80	OLDS	CUTL	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.01 0.01 0.02	37. 94. 30. 4.

Reproduced from
best available copy.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPM-HX	CO, PCT	NO. RPM
0011	80	OLDS	CUTL	231	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.01 0.01 0.01	8. 90. 19. 11.
0012	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.00 0.01 0.03	17. 28. 19. 162.
0013	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	36. 0. 0. 2.	0.09 0.00 0.00 0.02	0. 1. 0. 0.
0014	80	FORD	MUST	140	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	21. 5. 15. 0.	0.01 0.01 0.01 0.00	33. 60. 30. 0.
0015	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.01 0.01 0.02	23. 12. 27. 135.
0016	80	CHEV	MONT	303	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 1. 0. 0.	0.00 0.01 0.00 0.00	20. 39. 13. 22.
0017	80	OLDS	CUTL	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 1. 1. 0.	0.01 0.01 0.01 0.03	9. 63. 42. 6.

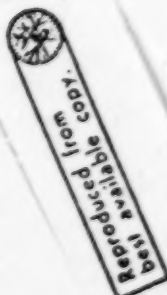
APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISAB, SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISAB OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0018	80	OLDS	STAR	151	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.00 0.00 0.00	1. 5. 15. 16.
0019	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 1. 0. 0.	0.01 0.01 0.01 0.01	57. 58. 56. 178.
0020	80	BUIC	CENT	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.01 0.01 0.01	25. 23. 30. 51.
0021	80	BUIC	LESA	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	54. 28. 24. 19.	0.09 0.03 0.02 0.08	0. 2. 16. 2.
0022	80	CHEV	MONT	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	39. 27. 1. 0.	0.01 0.10 0.01 0.02	27. 11. 23. 51.
0023	80	CADI	BEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4. 18. 1. 3.	0.01 0.01 0.00 0.00	4. 56. 8. 23.
0024	80	BUIC	REGA	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	15. 1. 0. 0.	0.05 0.03 0.01 0.04	1. 45. 4. 4.



Reproduced from
best available copy.

APPENDIX H
LISTING OF FOUR-SPEED IDLE EMISSIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISAB, SN-3, REPLACE O2 SNBR,
SN-4, AFTER CORR. OF OTHER DISAB OR MALADJ, SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECH DISCNCTD, SN-7, O2 SNBR DISCNCTD,
SN-8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD, SN-9, CTS DISCNCTD, SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0025	80	BUIC	SKYH	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	56. 0. 9. 1.	0.14 0.15 0.06 0.06	3. 2. 6. 2.
0026	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	21. 0. 3. 0.	0.23 0.02 0.08 0.02	1. 1. 1. 0.
0027	80	FORD	LTD	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 1. 1. 1.	0.02 0.01 0.01 0.01	2. 101. 8. 19.
0028	80	BUIC	CENT	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 2. 1. 1.	0.02 0.01 0.01 0.01	40. 79. 31. 58.
0029	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.00 0.00 0.00 0.00	53. 41. 39. 130.
0030	80	DATS	810	146	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	B2. 6. 8. 58.	0.15 0.13 0.06 0.08	5. 4. 4. 2.
0031	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 0. 1.	0.00 0.00 0.00 0.00	54. 3. 74. 211.

Reproduced from
best available copy.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEDS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0032	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	8. 7. 20. 3.	0.02 0.01 0.02 0.01	76. 15. 16. 242.
0032	80	CHEV	CHET	98	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 10. 1. 0.	0.02 0.09 0.02 0.02	66. 0. 1. 219.
0032	80	CHEV	CHET	98	3	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.02 0.02 0.01	26. 238. 35. 35.
0033	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	20. 12. 3. 0.	0.00 0.01 0.00 0.00	26. 3. 2. 0.
0034	80	BUIC	CENT	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 2. 2. 0.	0.01 0.00 0.00 0.01	3. 37. 30. 3.
0035	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 2. 2. 0.	0.00 0.00 0.00 0.00	13. 0. 1. 0.
0036	80	MERC	STAW	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 1. 0. 0.	0.01 0.01 0.01 0.01	29. 26. 14. 37.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISABLE, SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECM DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TFS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC,PPM#EX	CO,PCT	NO,PPH
0037	80	MERC	MARG	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	18. 0. 0. 0.	0.21 0.00 0.00 0.00	6. 39. 5. 14.
0038	80	OLDS	CUTL	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 2. 0. 1.	0.03 0.02 0.02 0.02	0. 24. 0. 19.
0039	80	BUIC	CENT	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	22. 4. 4. 0.	0.04 0.02 0.01 0.02	0. 36. 30. 0.
0040	80	AMC	CONC	258	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 1. 0. 7.	0.01 0.01 0.01 0.22	31. 14. 16. 0.
0041	80	AMC	STAM	258	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 6.	0.02 0.02 0.01 0.18	19. 11. 2. 10.
0042	80	FORD	LTD	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.03 0.01 0.01 0.01	3. 87. 6. 12.
0043	80	BUIC	LESA	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	13. 2. 0. 0.	0.09 0.02 0.03 0.02	1. 74. 1. 0.

Reproduced from
best available copy.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0044	80	FORD	STAW	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3 3 1 2	0.02 0.01 0.01 0.01	47. 65. 31. 77.
0045	80	OLDS	CUTL	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0 0 0 1	0.02 0.02 0.02 0.02	25. 56. 7. 61.
0046	80	FORD	MUST	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4 0 0 0	0.03 0.43 0.02 0.01	50. 6. 67. 171.
0046	80	FORD	MUST	200	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0 0 0 1	0.01 0.01 0.01 0.01	37. 49. 19. 68.
0047	80	DATS	B10	146	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0 0 0 0	0.02 0.02 0.02 0.00	9. 24. 11. 0.
0048	80	FORD	STAW	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1 0 0 2	0.02 0.01 0.01 0.02	41. 40. 16. 69.
0049	80	BUIC	CENT	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0 1 0 0	0.02 0.02 0.02 0.02	3. 95. 32. 32.



Reproduced from
best available copy.



Reproduced from
best available copy.

APPENDIX H
LISTING OF FOUR-SPEED IDLE EMISSIONS
ON INDIVIDUAL VEHICLES
LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLING, SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER DISABLING OR MALADJ, SN=5, AFTER MAJOR TUNE-UP,
SN=6, ECM DISCNCTD, SN=7, O2 SNR DISCNCTD,
SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0050	80	FORD	FAIR	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2. 2. 0. 1.	0.01 0.01 0.01 0.01	36. 39. 16. 69.
0051	80	FORD	LTD	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 3. 0. 0.	0.00 0.00 0.00 0.00	9. 81. 16. 70.
0052	80	0 DS	CUTL	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 0. 0.	0.01 0.01 0.02 0.01	43. 23. 2. 66.
0053	80	FORD	FAIR	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.01 0.01 0.01	40. 45. 18. 69.
0054	80	FORD	MUST	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 0. 0.	0.01 0.01 0.01 0.01	34. 41. 24. 59.
0055	80	OLDS	CUTL	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.02 0.02 0.02 0.02	10. 34. 32. 21.
0056	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	6. 5. 3. 3.	0.01 0.02 0.01 0.01	13. 67. 18. 29.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0057	80	LINC	CONT	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	84. 2. 9. 9.	0.10 0.01 0.01 0.01	7. 76. 15. 35.
0057	80	LINC	CONT	351	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	55. 2. 11. 16.	0.12 0.01 0.01 0.01	2. 108. 16. 42.
0058	80	CHEV	CANA	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 2. 0. 1.	0.02 0.02 0.00 0.02	20. 33. 31. 36.
0058	80	CHEV	CANA	305	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 0. 0.	0.02 0.02 0.01 0.02	13. 67. 32. 7.
0059	80	FORD	FAIR	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 2. 0. 1.	0.02 0.01 0.01 0.01	31. 53. 14. 44.
0060	80	FORD	FAIR	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 2.	0.02 0.01 0.01 0.01	54. 70. 29. 166.
0061	80	FORD	STAM	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	8. 3. 4. 4.	0.08 0.02 0.02 0.02	24. 65. 18. 44.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
BN-1, AS RECEIVED; BN-2, AFTER CORR. OF OBVIOUS DISABLE; BN-3, REPLACE O2 SENS;
BN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; BN-5, AFTER MAJOR TUNE-UP;
BN-6, ECH DISCNCTD; BN-7, O2 SENS DISCNCTD;
BN-8, BATT DISCNCTD 10 MIN. O2 SENS DISCNCTD; BN-9, CTS DISCNCTD; BN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	BN	MODE	HC, PPMEX	CO, PCT	NO, RPM
0061	80	FORD	STAW	351	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	21. 0. 0. 6.	0.26 0.02 0.02 0.03	13. 109. 22. 36.
0061	80	FORD	STAW	351	3	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	8. 3. 0. 1.	0.14 0.02 0.01 0.02	24. 166. 10. 54.
0062	80	CHEV	CAMA	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 0. 0.	0.02 0.02 0.02 0.02	38. 57. 47. 94.
0063	80	CADI	ELDO	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 12. 0. 0.	0.02 0.03 0.02 0.02	4. 72. 11. 18.
0064	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 6. 0. 1.	0.02 0.02 0.01 0.01	4. 27. 12. 33.
0065	80	FORD	FAIR	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 0. 1.	0.01 0.01 0.01 0.01	29. 45. 29. 79.
0066	80	FORD	STAW	200	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	22. 10. 7. 26.	0.02 0.02 0.02 0.02	73. 88. 43. 78.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR/
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPHEX	CO, PCT	NO, PPM
0066	80	FORD	STAW	200	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	27. 13. 12. 24.	0.02 0.01 0.01 0.01	70. 94. 44. 82.
0067	80	CADI	DEVI	368	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 6. 1. 4.	0.02 0.02 0.02 0.02	39. 84. 44. 200.
0068	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	6. 12. 3. 5.	0.02 0.02 0.02 0.02	15. 39. 10. 29.
0069	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	5. 5. 4. 4.	0.02 0.02 0.02 0.02	6. 25. 22. 19.
0070	80	CADI	ELDO	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 19. 0. 15.	0.02 0.03 0.02 0.02	25. 115. 36. 52.
0071	80	CHEV	CAMA	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2. 0. 1. 2.	0.01 0.02 0.02 0.01	41. 92. 51. 82.
0072	80	LINC	MRK6	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.05 0.02 0.01 0.02	18. 54. 13. 47.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN; O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPHEX	CO, PCT	NO, PPM
0073	80	DATS	810	146	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	13. 0. 0. 7.	0.03 0.07 0.03 0.06	1. 6. 0. 3.
0074	80	OLDS	CUTL	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.02 0.02 0.02 0.02	54. 94. 60. 104.
0075	80	CHRY	CORD	318	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.01 0.02 0.01	2. 10. 8. 17.
0076	80	CHEV	CHET	98	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.02 0.02 0.02 0.02	66. 74. 64. 152.
0076	80	CHEV	CHET	98	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 1. 0.	0.02 0.02 0.02 0.02	97. 186. 95. 193.
0077	80	OLDS	CUTL	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.02 0.02 0.02 0.02	61. 62. 70. 144.
0078	80	OLDS	CUTL	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.02 0.01 0.01	29. 121. 49. 63.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED, SN-2, AFTER CORR. OF OBVIOUS DISABLE, SN-3, REPLACE O2 SNBR,
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ, SN-5, AFTER MAJOR TUNE-UP,
SN-6, ECM DISCNCTD, SN-7, O2 SNBR DISCNCTD,
SN-8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD, SN-9, CTS DISCNCTD, SN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0079	80	OLDS	CUTL	305	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0 0 0 0	0.01 0.01 0.02 0.01	27. 84. 36. 66.
0080	80	DODG	CHRY	105	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	5 5 2 0	0.01 0.02 0.01 0.00	13. 21. 13. 0.
0081	80	DATS	280Z	168	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1 0 0 0	0.03 0.05 0.02 0.00	12. 8. 11. 0.
0082	80	PLYM	HORI	105	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1 4 0 0	0.01 0.02 0.01 0.01	9 10. 9. 11.
0083	80	CHRY	CORD	318	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0 0 0 1	0.02 0.02 0.01 0.02	6. 5. 13. 45.
0083	80	CHRY	CORD	318	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2 0 0 20	0.02 0.02 0.01 0.30	4. 3. 4. 8.
0084	80	PLYM	HORI	105	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	12 3 12 15	0.02 0.02 0.02 0.04	27. 31. 28. 32.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPM/EX	CO, PCT	NO, PPM
0084	80	PLYM	HORI	105	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 0. 2. 6.	0.01 0.01 0.01 0.04	29. 31. 23. 27.
0084	80	PLYM	HORI	105	3	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	10. 5. 11. 18.	0.02 0.02 0.02 0.05	24. 30. 26. 28.
0084	80	PLYM	HORI	105	4	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	8. 3. 11. 15.	0.02 0.01 0.01 0.04	26. 31. 29. 29.
0084	80	PLYM	HORI	105	5	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2. 8. 3. 6.	0.01 0.01 0.01 0.01	7. 22. 8. 15.
0085	80	CADI	DEVI	368	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	18. 3. 15. 6.	0.02 0.02 0.02 0.02	55. 159. 67. 231.
0085	80	CADI	DEVI	368	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	24. 9. 17. 14.	0.01 0.02 0.01 0.01	63. 140. 69. 254.
0085	80	CADI	DEVI	368	3	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	22. 8. 20. 17.	0.01 0.01 0.01 0.01	55. 127. 64. 227.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0086	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	13. 30. 8. 2.	0.02 0.04 0.02 0.02	7. 57. 7. 7.
0087	80	PLYM	HORI	105	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	7. 4. 2. 2.	0.02 0.02 0.02 0.02	12. 22. 10. 20.
0088	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	5. 8. 4. 5.	0.01 0.01 0.01 0.01	7. 48. 9. 17.
0089	80	CHRY	LEBA	225	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 12.	0.01 0.03 0.01 0.04	6. 10. 9. 10.
0090	80	CADI	DEVI	368	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	22. 10. 13. 10.	0.00 0.00 0.00 0.00	11. 56. 14. 31.
0091	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 1. 0. 0.	0.01 0.02 0.01 0.01	4. 28. 6. 19.
0092	80	CADI	ELDO	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 10. 2. 0.	0.01 0.02 0.01 0.01	2. 43. 5. 6.

APPENDIX H
LISTING OF FOUR-SPEED IDLE EMISSIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0093	80	CHEV	MAL I	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 0. 0. 2.	0.04 0.02 0.03 0.05	1. 33. 0. 0.
0094	80	CHEV	CAPR	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.01 0.01 0.01 0.01	23. 55. 15. 3.
0095	80	CHEV	MAL I	231	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4. 2. 0. 0.	0.05 0.06 0.03 0.18	10. 31. 18. 22.
0095	80	CHEV	MAL I	231	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2. 7. 5. 4.	0.04 0.04 0.03 0.05	3. 36. 19. 3.
0096	80	CADI	FLEE	368	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	5. 2. 0. 0.	0.02 0.02 0.01 0.02	21. 36. 16. 16.
0096	80	CADI	FLEE	368	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	5. 4. 2. 2.	0.01 0.01 0.01 0.01	60. 30. 23. 40.
0097	80	CADI	DEVI	368	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4. 8. 1. 4.	0.01 0.02 0.01 0.02	3. 51. 1. 22.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNBR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNBR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN; O2 SNBR DISCNCTD; SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPM-X	CO, PCT	NO, PPM
0098	80	CADI	FLEE	368	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4. 8. 3. 7.	0.01 0.01 0.01 0.02	20. 62. 28. 202.
0098	80	CADI	FLEE	368	6	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2. 14. 2. 12.	0.01 0.28 0.01 0.01	21. 54. 43. 39.
0098	80	CADI	FLEE	368	7	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2. 14. 3. 15.	0.02 0.17 0.01 0.01	2. 69. 31. 74.
0098	80	CADI	FLEE	368	8	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	10. 11. 5. 5.	0.00 0.16 0.00 0.02	7. 73. 44. 45.
0098	80	CADI	FLEE	368	9	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4. 5. 0. 0.	0.02 0.02 0.01 0.02	10. 62. 6. 37.
0099	80	FORD	LTD	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 2. 1. 2.	0.01 0.01 0.01 0.01	5. 19. 26. 49.
0100	80	FORD	LTD	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2. 0. 0. 0.	0.01 0.01 0.00 0.01	52. 48. 25. 77.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPM-HX	CO, PCT	NO, PPM
0101	80	FORD	LTD	351	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 3. 0.	0.03 0.01 0.01 0.01	24. 152. 30. 23.
0102	80	CADI	DEVI	368	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4. 8. 1. 2.	0.01 0.01 0.01 0.01	9. 37. 1. 5.
0102	80	CADI	DEVI	368	6	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	22. 11. 4. 7.	0.08 0.65 0.07 0.20	40. 33. 35. 47.
0102	80	CADI	DEVI	368	7	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	18. 18. 19. 15.	0.06 0.13 0.07 0.14	40. 77. 41. 73.
0102	80	CADI	DEVI	368	8	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	30. 32. 29. 27.	0.02 0.12 0.06 0.13	38. 81. 41. 74.
0102	80	CADI	DEVI	368	9	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	2. 1. 0. 0.	0.02 0.02 0.01 0.02	14. 25. 11. 1.
0103	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4. 7. 2. 3.	0.01 0.01 0.01 0.01	8. 23. 10. 15.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNBR;
SN=4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNBR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0104	80	VOLK	SCIR	97	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	96. 3. 130. 0.	0.11 0.04 0.08 0.00	0. 1. 1. 0.
0105	80	CADI	SEVI	350	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	8. 22. 8. 7.	0.04 0.10 0.04 0.02	16. 68. 20. 31.
0106	80	DODG	OMNI	105	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	5. 0. 5. 0.	0.02 0.01 0.01 0.00	5. 22. 3. 0.
0107	80	PLYM	VOLA	225	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	9. 5. 6. 4.	0.02 0.08 0.02 0.02	17. 19. 9. 17.
0108	80	VOLK	SCIR	97	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 0. 2. 0.	0.02 0.02 0.02 0.00	17. 51. 18. 0.
0109	80	CHRY	CORD	318	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 1. 0. 0.	0.01 0.02 0.02 0.02	4. 7. 9. 12.
0110	80	CHRY	CORD	318	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	4. 1. 0. 2.	0.01 0.01 0.01 0.01	5. 24. 7. 12.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLING, SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER DISABLING OR MALADJ, SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD, SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0110	80	CHRY	CORD	318	2	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.02 0.01 0.01 0.02	9. 18. 6. 9.
0110	80	CHRY	CORD	318	3	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 2. 2. 1.	0.01 0.01 0.01 0.01	6. 37. 5. 9.
0110	80	CHRY	CORD	318	4	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	1. 1. 0. 28.	0.01 0.01 0.01 0.18	4. 19. 4. 6.
0111	80	DODG	MIRA	318	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	3. 0. 0. 14.	0.02 0.02 0.01 0.09	4. 4. 5. 11.
0112	80	AUDI	5000	131	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	0. 0. 0. 0.	0.02 0.02 0.02 0.02	15. 1. 15. 3.
0113	80	AUDI	4000	97	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	25. 0. 3. 0.	0.08 0.02 0.03 0.00	0. 12. 1. 0.
0114	80	CADI	DEVI	368	1	IDLE (N) 2500 RPM IDLE (N) IDLE (D)	8. 6. 4. 4.	0.02 0.02 0.02 0.02	50. 47. 48. 171.

APPENDIX H

LISTING OF FOUR-SPEED IDLE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

NOTE: ALL ZEROS INDICATES DATA NOT COLLECTED (MANUAL TRANS)
SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER DISABLE OR MALADJ; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	HC, PPMEX	CO, PCT	NO, PPM
0114	80	CADI	DEVI	368	0	IDLE (N)	26.	0.02	38.
						2500 RPM	14.	0.14	60.
						IDLE (N)	17.	0.03	47.
						IDLE (D)	11.	0.03	124.
0115	80	CADI	DEVI	368	1	IDLE (N)	4.	0.02	15.
						2500 RPM	7.	0.02	77.
						IDLE (N)	3.	0.02	14.
						IDLE (D)	3.	0.02	43.
0115	80	CADI	DEVI	368	0	IDLE (N)	9.	0.13	36.
						2500 RPM	15.	0.14	80.
						IDLE (N)	15.	0.16	37.
						IDLE (D)	5.	0.53	51.
0116	80	CADI	COUP	368	1	IDLE (N)	3.	0.01	9.
						2500 RPM	5.	0.01	88.
						IDLE (N)	1.	0.01	9.
						IDLE (D)	1.	0.01	46.

APPENDIX I

LISTING OF LOADED TWO-MODE TEST RESULTS
ON INDIVIDUAL VEHICLES

Reproduced from
best available copy.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LDS ANGELES

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECH DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPMEX	CO, PCT	NO, PPM
0001	80	PONT	FIRE	305	1	30 MPH IDLE	9.0	154. 124.	3.24 2.19	30. 14.
0001	80	PONT	FIRE	305	2	30 MPH IDLE	9.0	0. 11.	0.03 0.00	237. 23.
0001	80	PONT	FIRE	305	3	30 MPH IDLE	9.0	2. 0.	0.01 0.01	63. 13.
9002	79	PLYM	VOLA	225	1	30 MPH IDLE	9.0	18. 20.	0.06 0.01	119. 15.
9003	79	PLYM	VOLA	225	1	30 MPH IDLE	9.0	4. 10.	0.10 0.02	71. 30.
9003	79	PLYM	VOLA	225	2	30 MPH IDLE	9.0	2. 0.	0.00 0.00	97. 9.
0004	80	VOLK	RABB	97	1	30 MPH IDLE	9.0	8. 2.	0.16 0.08	18. 0.
0005	80	CHEV	IMPA	305	1	30 MPH IDLE	9.0	200. 170.	4.03 6.02	110. 42.
0005	80	CHEV	IMPA	305	2	30 MPH IDLE	9.0	2. 0.	0.00 0.00	263. 38.
0005	80	CHEV	IMPA	305	3	30 MPH IDLE	9.0	0. 0.	0.01 0.01	260. 37.
9006	79	DODG	STAW	225	1	30 MPH IDLE	9.0	0. 6.	0.00 0.00	71. 23.
0007	80	CHEV	MONT	231	1	30 MPH IDLE	9.0	3. 6.	0.00 0.01	31. 31.
9008	79	PLYM	VOLA	225	1	30 MPH IDLE	9.0	13. 14.	0.06 0.03	108. 34.

Reproduced from
best available copy.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN-1. AS RECEIVED; SN-2. AFTER CORR. OF OBVIOUS DISAB; SN-3. REPLACE O2 SNR;
SN-4. AFTER CORR. OF OTHER MALADJ OR DISAB; SN-5. AFTER MAJOR TUNE-UP;
SN-6. ECH DISCNCTD; SN-7. O2 SNR DISCNCTD;
SN-8. BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9. CTS DISCNCTD; SN-10. TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	8/1	MODE	RLHP	HC, PPMEX	CO, PCT	NO, PPM
9008	79	PLYM	VOLA	225	2	30 MPH IDLE	9.0	0. 1.	0.00 0.00	84. 14.
0009	80	PLYM	VOLA	225	1	30 MPH IDLE	9.0	8. 3.	0.35 0.09	54. 35.
0009	80	PLYM	VOLA	225	2	30 MPH IDLE	9.0	20. 10.	0.22 0.06	61. 6.
0009	80	PLYM	VOLA	225	3	30 MPH IDLE	9.0	18. 16.	0.29 0.06	50. 15.
0009	80	PLYM	VOLA	225	4	30 MPH IDLE	9.0	11. 3.	0.11 0.02	59. 6.
0009	80	PLYM	VOLA	225	5	30 MPH IDLE	9.0	60. 26.	0.92 0.03	38. 13.
0010	80	BUIC	SKYH	231	1	30 MPH IDLE	9.0	32. 121.	0.21 0.09	26. 4.
0011	80	OLDS	CUTL	231	1	30 MPH IDLE	9.0	0. 1.	0.02 0.01	199. 52.
0011	80	OLDS	CUTL	231	2	30 MPH IDLE	9.0	0. 0.	0.04 0.01	178. 33.
0012	80	CHEV	CHEV	98	1	30 MPH IDLE	9.0	3. 0.	0.02 0.00	252. 49.
0013	80	CHEV	CHEV	98	1	30 MPH IDLE	9.0	23. 0.	0.10 0.00	0. 0.
0014	80	FORD	MUST	140	1	30 MPH IDLE	9.0	5. 16.	0.01 0.01	314. 26.
0015	80	CHEV	CHEV	98	1	30 MPH IDLE	9.0	0. 0.	0.02 0.01	369. 47.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECH DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPMEX	CO, PCT	NO, PPM
0016	80	CHEV	MONT	305	1	30 MPH IDLE	9.0	0. 0.	0.00 0.00	26. 1.
0017	80	OLDS	CUTL	231	1	30 MPH IDLE	9.0	2. 1.	0.04 0.01	88. 34.
0018	80	OLDS	STAR	151	1	30 MPH IDLE	9.0	0. 0.	0.01 0.00	37. 26.
0019	80	CHEV	CHET	98	1	30 MPH IDLE	9.0	0. 0.	0.01 0.01	0. 1.
0020	80	BUIC	CENT	305	1	30 MPH IDLE	9.0	0. 0.	0.01 0.01	234. 40.
0021	80	BUIC	LESA	231	1	30 MPH IDLE	9.0	6. 8.	0.05 0.02	0. 1.
0022	80	CHEV	MONT	231	1	30 MPH IDLE	9.0	4. 1.	0.01 0.01	51. 23.
0023	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	7. 2.	0.01 0.00	30. 8.
0024	80	BUIC	REGA	231	1	30 MPH IDLE	9.0	13. 0.	0.15 0.01	7. 16.
0025	80	BUIC	SKYH	231	1	30 MPH IDLE	9.0	98. 25.	0.43 0.10	5. 0.
0026	80	CHEV	CHET	98	1	30 MPH IDLE	9.0	4. 10.	0.06 0.15	0. 0.
0027	80	FORD	LTD	351	1	30 MPH IDLE	9.0	5. 0.	0.02 0.01	45. 8.
0028	80	BUIC	CENT	231	1	30 MPH IDLE	9.0	1. 2.	0.02 0.01	49. 39.

Reproduced from
best available copy.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE	VR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPM/EX	CO, PCT	NO. PPM
0029	80	CHEV	CHET	98	1	30 MPH IDLE	9.0	2. 3.	0.01 0.01	3. 1.
0030	80	DATS	810	146	1	30 MPH IDLE	9.0	7. 4.	0.05 0.05	34. 1.
0031	80	CHEV	CHET	98	1	30 MPH IDLE	9.0	2. 0.	0.02 0.00	0. 2.
0032	80	CHEV	CHET	98	1	30 MPH IDLE	9.0	40. 1.	0.15 0.00	2. 1.
0032	80	CHEV	CHET	98	2	30 MPH IDLE	9.0	92. 41.	0.44 0.08	2. 1.
0032	80	CHEV	CHET	98	3	30 MPH IDLE	9.0	0. 0.	0.01 0.01	740. 52.
0033	80	CHEV	CHET	98	1	30 MPH IDLE	9.0	3. 8.	0.01 0.00	6. 0.
0034	80	BUIC	CENT	231	1	30 MPH IDLE	9.0	13. 4.	0.20 0.00	71. 26.
0035	80	CHEV	CHET	98	1	30 MPH IDLE	9.0	14. 11.	0.02 0.01	1. 1.
0036	80	HERC	STAW	351	1	30 MPH IDLE	9.0	5. 2.	0.01 0.01	51. 18.
0037	80	HERC	MARG	351	1	30 MPH IDLE	9.0	11. 3.	0.01 0.01	41. 8.
0038	80	OLDS	CUTL	305	1	30 MPH IDLE	9.0	1. 0.	0.01 0.02	84. 0.
0039	80	BUIC	CENT	231	1	30 MPH IDLE	9.0	46. 13.	0.16 0.04	4. 24.

Reproduced from
best available copy.

APPENDIX I
LISTING OF LOADED TWO-MODE EMISSIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPMEX	CO, PCT	NO, PPM
0040	80	ANC	CONC	258	1	30 MPH IDLE	9.0	9. 0.	0.01 0.01	144. 0.
0041	80	ANC	STAW	258	1	30 MPH IDLE	9.0	7. 11.	0.02 0.02	110. 20.
0042	80	FORD	LTD	351	1	30 MPH IDLE	9.0	1. 0.	0.02 0.01	53. 5.
0043	80	BUIC	LESA	231	1	30 MPH IDLE	9.0	0. 2.	0.06 0.03	324. 9.
0044	80	FORD	STAW	200	1	30 MPH IDLE	9.0	8. 1.	0.02 0.02	375. 29.
0045	80	OLDS	CUTL	305	1	30 MPH IDLE	9.0	0. 0.	0.02 0.01	112. 15.
0046	80	FORD	HUST	200	1	30 MPH IDLE	9.0	5. 0.	0.02 0.01	192. 74.
0046	80	FORD	HUST	200	2	30 MPH IDLE	9.0	7. 0.	0.01 0.01	230. 21.
0047	80	DATS	810	146	1	30 MPH IDLE	9.0	0. 0.	0.03 0.01	236. 5.
0048	80	FORD	STAW	200	1	30 MPH IDLE	9.0	4. 0.	0.01 0.01	299. 16.
0049	80	BUIC	CENT	231	1	30 MPH IDLE	9.0	2. 1.	0.04 0.02	204. 26.
0050	80	FORD	FAIR	200	1	30 MPH IDLE	9.0	4. 0.	0.01 0.01	232. 19.
0051	80	FORD	LTD	351	1	30 MPH IDLE	9.0	10. 2.	0.00 0.00	38. 15.

Reproduced from
best available copy.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLE, SN=3, REPLACE O2 SNBR,
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLE, SN=5, AFTER MAJOR TUNE-UP,
SN=6, ECH DISCNCTD, SN=7, O2 SNBR DISCNCTD,
SN=8, BATT DISCNCTD 10 MIN, O2 SNBR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPMEX	CO, PCT	NO, PPM
0052	80	OLDS	CUTL	305	1	30 MPH IDLE	9.0	0.	0.02	19.
0053	80	FORD	FAIR	200	1	30 MPH IDLE	9.0	2.	0.01	269.
0054	80	FORD	MUST	200	1	30 MPH IDLE	9.0	1.	0.01	17.
0055	80	OLDS	CUTL	305	1	30 MPH IDLE	9.0	0.	0.08	209.
0056	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	0.	0.01	19.
0057	80	LINC	CONT	351	1	30 MPH IDLE	9.0	0.	0.03	21.
0057	80	LINC	CONT	351	2	30 MPH IDLE	9.0	14.	0.01	3.
0058	80	CHEV	CAMA	305	1	30 MPH IDLE	9.0	3.	0.01	83.
0058	80	CHEV	CAMA	305	2	30 MPH IDLE	9.0	20.	0.02	14.
0059	80	FORD	FAIR	200	1	30 MPH IDLE	9.0	11.	0.01	77.
0060	80	FORD	FAIR	200	1	30 MPH IDLE	9.0	21.	0.02	16.
0061	80	FORD	STAW	351	1	30 MPH IDLE	9.0	8.	0.01	118.
0061	80	FORD	- STAW	351	2	30 MPH IDLE	9.0	5.	0.04	5.
0061	80	FORD	STAW	351	1	30 MPH IDLE	9.0	7.	0.18	77.
0061	80	FORD	STAW	351	2	30 MPH IDLE	9.0	2.	0.02	21.
0061	80	FORD	STAW	351	1	30 MPH IDLE	9.0	8.	0.01	155.
0061	80	FORD	STAW	351	2	30 MPH IDLE	9.0	2.	0.03	28.
0061	80	FORD	STAW	351	1	30 MPH IDLE	9.0	9.	0.01	307.
0061	80	FORD	STAW	351	2	30 MPH IDLE	9.0	0.	0.01	24.
0061	80	FORD	STAW	351	1	30 MPH IDLE	9.0	15.	0.02	409.
0061	80	FORD	STAW	351	2	30 MPH IDLE	9.0	3.	0.01	26.
0061	80	FORD	STAW	351	1	30 MPH IDLE	9.0	14.	0.02	71.
0061	80	FORD	STAW	351	2	30 MPH IDLE	9.0	0.	0.03	45.
0061	80	FORD	STAW	351	1	30 MPH IDLE	9.0	14.	0.02	92.
0061	80	FORD	STAW	351	2	30 MPH IDLE	9.0	0.	0.02	12.

Reproduced from
best available copy.

APPENDIX I
LISTING OF LOADED TWO-MODE EMISSIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECH DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPMEX	CO, PCT	NO, PPM
0061	80	FORD	STAW	351	3	30 MPH IDLE	9.0	10. 3.	0.02 0.02	89. 22.
0062	80	CHEV	CAMA	305	1	30 MPH IDLE	9.0	12. 2.	0.19 0.02	109. 53.
0063	80	CADI	ELDO	350	1	30 MPH IDLE	9.0	4. 0.	0.02 0.02	21. 10.
0064	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	4. 0.	0.02 0.02	30. 7.
0065	80	FORD	FAIR	200	1	30 MPH IDLE	9.0	11. 0.	0.05 0.02	99. 47.
0066	80	FORD	STAW	200	1	30 MPH IDLE	9.0	23. 9.	0.02 0.02	301. 38.
0066	80	FORD	STAW	200	2	30 MPH IDLE	9.0	16. 7.	0.02 0.01	299. 51.
0067	80	CADI	DEVI	368	1	30 MPH IDLE	9.0	5. 1.	0.02 0.02	135. 47.
0068	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	14. 2.	0.03 0.02	67. 9.
0069	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	6. 7.	0.03 0.03	36. 24.
0070	80	CADI	ELDO	350	1	30 MPH IDLE	9.0	25. 0.	0.14 0.02	97. 38.
0071	80	CHEV	CAMA	305	1	30 MPH IDLE	9.0	2. 0.	0.02 0.01	138. 54.
0072	80	LINC	HRK6	351	1	30 MPH IDLE	9.0	0. 0.	0.02 0.01	67. 11.

Reproduced from
best available copy.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O2 SNR;
SN-4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O2 SNR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN-9, CTS DISCNCTD; SN-10, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPHEX	CO, PCT	NO. PPM
0073	80	DATS	810	146	1	30 MPH IDLE	9.0	3. 6.	0.05 0.08	123. 2.
0074	80	OLDS	CUTL	305	1	30 MPH IDLE	9.0	4. 1.	0.03 0.02	253. 60.
0075	80	CHRY	CORD	318	1	30 MPH IDLE	9.0	1. 0.	0.02 0.01	60. 13.
0076	80	CHEV	CHET	98	1	30 MPH IDLE	9.0	0. 0.	0.06 0.02	9. 15.
0076	80	CHEV	CHET	98	2	30 MPH IDLE	9.0	8. 0.	0.07 0.02	3. 89.
0077	80	OLDS	CUTL	305	1	30 MPH IDLE	9.0	0. 0.	0.02 0.02	233. 71.
0078	80	OLDS	CUTL	305	1	30 MPH IDLE	9.0	0. 0.	0.02 0.02	373. 50.
0079	80	OLDS	CUTL	305	1	30 MPH IDLE	9.0	0. 0.	0.02 0.01	165. 46.
0080	80	DODG	CHRY	105	1	30 MPH IDLE	9.0	1. 6.	0.02 0.02	101. 18.
0081	80	DATS	280Z	168	1	30 MPH IDLE	9.0	2. 0.	0.06 0.03	318. 14.
0082	80	PLYM	HORI	105	1	30 MPH IDLE	9.0	2. 0.	0.02 0.01	125. 7.
0083	80	CHRY	CORD	318	1	30 MPH IDLE	9.0	3. 0.	0.21 0.02	52. 10.
0083	80	CHRY	CORD	318	2	30 MPH IDLE	9.0	0. 0.	0.02 0.02	25. 3.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN-1. AS RECEIVED; SN-2. AFTER CORR. OF OBVIOUS DISABLE; SN-3. REPLACE O2 SNBR;
SN-4. AFTER CORR. OF OTHER MALADJ OR DISABLE; SN-5. AFTER MAJOR TUNE-UP;
SN-6. ECH DISCNCTD; SN-7. O2 SNBR DISCNCTD;
SN-8. BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN-9. CTS DISCNCTD; SN-10. TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPMEX	CO, PCT	NO, PPM
0084	80	PLYM	HORI	105	1	30 MPH IDLE	9.0	1. 25.	0.02 0.03	227. 27.
0084	80	PLYM	HORI	105	2	30 MPH IDLE	9.0	3. 21.	0.01 0.05	224. 28.
0084	80	PLYM	HORI	105	3	30 MPH IDLE	9.0	5. 22.	0.02 0.03	244. 23.
0084	80	PLYM	HORI	105	4	30 MPH IDLE	9.0	5. 24.	0.02 0.04	246. 28.
0084	80	PLYM	HORI	105	5	30 MPH IDLE	9.0	6. 7.	0.01 0.01	215. 12.
0085	80	CADI	DEVI	368	1	30 MPH IDLE	9.0	12. 18.	0.02 0.02	213. 55.
0085	80	CADI	DEVI	368	2	30 MPH IDLE	9.0	11. 25.	0.01 0.02	155. 45.
0085	80	CADI	DEVI	368	3	30 MPH IDLE	9.0	14. 30.	0.01 0.01	160. 53.
0086	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	11. 11.	0.03 0.02	14. 2.
0087	80	PLYM	HORI	105	1	30 MPH IDLE	9.0	2. 5.	0.02 0.02	196. 8.
0088	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	14. 6.	0.03 0.02	95. 9.
0089	80	CHRY	LEBA	225	1	30 MPH IDLE	9.0	0. 0.	0.02 0.01	35. 10.
0090	80	CADI	DEVI	368	1	30 MPH IDLE	9.0	27. 9.	0.03 0.01	78. 6.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNBR;
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECH DISCNCTD; SN=7, O2 SNBR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNBR DISCNCTD; SN=9, CTS DISCNCTD; SN=O, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CTD	SN	MODE	RLP	HC, PPMEX	CO, PCT	NO, PPM
0091	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	2. 0.	0.01 0.01	25. 4.
0092	80	CADI	ELDO	350	1	30 MPH IDLE	9.0	6. 4.	0.02 0.01	38. 4.
0093	80	CHEV	MALI	231	1	30 MPH IDLE	9.0	31. 0.	0.30 0.02	3. 1.
0094	80	CHEV	CAPR	231	1	30 MPH IDLE	9.0	8. 0.	0.15 0.01	0. 40.
0095	80	CHEV	MALI	231	1	30 MPH IDLE	9.0	26. 3.	0.24 0.03	5. 20.
0095	80	CHEV	MALI	231	2	30 MPH IDLE	9.0	12. 14.	0.15 0.09	6. 14.
0096	80	CADI	FLEE	368	1	30 MPH IDLE	9.0	2. 1.	0.01 0.01	15. 5.
0096	80	CADI	FLEE	368	2	30 MPH IDLE	9.0	5. 3.	0.01 0.01	39. 18.
0097	80	CADI	DEVI	368	1	30 MPH IDLE	9.0	11. 5.	0.02 0.01	101. 7.
0098	80	CADI	FLEE	368	1	30 MPH IDLE	9.0	8. 6.	0.02 0.02	82. 15.
0098	80	CADI	FLEE	368	4	30 MPH IDLE	9.0	18. 9.	0.47 0.02	50. 36.
0098	80	CADI	FLEE	368	7	30 MPH IDLE	9.0	10. 9.	0.19 0.01	96. 41.
0098	80	CADI	FLEE	368	8	30 MPH IDLE	9.0	23. 9.	0.05 0.00	151. 44.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPMHX	CO, PCT	NO, PPM
0098	80	CADI	FLEE	368	9	30 MPH IDLE	9.0	5. 0.	0.02 0.01	85. 2.
0099	80	FORD	LTD	351	1	30 MPH IDLE	9.0	7. 2.	0.01 0.01	48. 20.
0100	80	FORD	LTD	351	1	30 MPH IDLE	9.0	5. 0.	0.01 0.01	37. 20.
0101	80	FORD	LTD	351	1	30 MPH IDLE	9.0	2. 0.	0.01 0.01	74. 6.
0102	80	CADI	DEVI	368	1	30 MPH IDLE	9.0	6. 3.	0.01 0.01	71. 6.
0102	80	CADI	DEVI	368	4	30 MPH IDLE	9.0	9. 22.	0.28 0.15	61. 37.
0102	80	CADI	DEVI	368	7	30 MPH IDLE	9.0	15. 20.	0.02 0.12	106. 39.
0102	80	CADI	DEVI	368	8	30 MPH IDLE	9.0	34. 44.	0.02 0.13	69. 39.
0102	80	CADI	DEVI	368	9	30 MPH IDLE	9.0	4. 1.	0.02 0.02	68. 10.
0103	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	10. 4.	0.02 0.01	78. 12.
0104	80	VOLK	SCIR	97	1	30 MPH IDLE	9.0	3. 43.	0.03 0.13	1. 1.
0105	80	CADI	SEVI	350	1	30 MPH IDLE	9.0	16. 7.	0.03 0.05	70. 15.
0106	80	DODG	OMNI	105	1	30 MPH IDLE	9.0	3. 22.	0.03 0.02	652. 25.

APPENDIX I

LISTING OF LOADED TWO-MODE EMISSIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLER; SN=3, REPLACE O2 SNR;
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLER; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECM DISCNCTD; SN=7, O2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN. O2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC, PPMEX	CO, PCT	NO, PPM
0107	80	PLYM	VOLA	225	1	30 MPH IDLE	9.0	8. 19.	0.18 0.02	46. 6.
0108	80	VOLK	SCIR	97	1	30 MPH IDLE	9.0	2. 0.	0.03 0.02	617. 41.
0109	80	CHRY	CORD	318	1	30 MPH IDLE	9.0	4. 1.	0.02 0.02	59. 6.
0110	80	CHRY	CORD	318	1	30 MPH IDLE	9.0	9. 0.	0.02 0.01	368. 6.
0110	80	CHRY	CORD	318	2	30 MPH IDLE	9.0	8. 0.	0.03 0.01	375. 9.
0110	80	CHRY	CORD	318	3	30 MPH IDLE	9.0	8. 0.	0.03 0.01	385. 13.
0110	80	CHRY	CORD	318	4	30 MPH IDLE	9.0	5. 0.	0.02 0.02	82. 6.
0111	80	DODG	MIRA	318	1	30 MPH IDLE	9.0	1. 0.	0.02 0.02	15. 5.
0112	80	AUDI	5000	131	1	30 MPH IDLE	9.0	1. 0.	0.02 0.02	209. 14.
0113	80	AUDI	4000	97	1	30 MPH IDLE	9.0	0. 1.	0.03 0.05	297. 3.
0114	80	CADI	DEVI	368	1	30 MPH IDLE	9.0	5. 8.	0.02 0.02	74. 42.
0114	80	CADI	DEVI	368	0	30 MPH IDLE	9.0	19. 24.	0.05 0.03	99. 45.
0115	80	CADI	DEVI	368	1	30 MPH IDLE	9.0	12. 5.	0.02 0.02	150. 13.

APPENDIX I
LISTING OF LOADED TWO-MODE EMISSIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED, SN=2, AFTER CORR. OF OBVIOUS DISABLE, SN=3, REPLACE O2 SNR,
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLE, SN=5, AFTER MAJOR TUNE-UP,
SN=6, ECM DISCNCTD, SN=7, O2 SNR DISCNCTD,
SN=8, BATT DISCNCTD 10 MIN, O2 SNR DISCNCTD, SN=9, CTS DISCNCTD, SN=0, TPS DISCNCTD

VEHICLE	YR	MAKE	MODEL	CID	SN	MODE	RLHP	HC,PPMEX	CO, PCT	NO, PPM
0115	80	CADI	DEVI	368	0	30 MPH IDLE	9.0	16. 26.	0.02 0.17	33. 35.
0116	80	CADI	COUP	368	1	30 MPH IDLE	9.0	6. 4.	0.01 0.01	112. 9.

APPENDIX J

LISTING OF DRIVEABILITY EVALUATIONS ON INDIVIDUAL VEHICLES

Legend

Data form included on next page.

DRIVEABILITY EVALUATION

Make _____ Model _____

Eng., Trans., Carb. _____

1 2 3 4 6 7 9
2 0 9 5 1 0 4

test
seq.

Site

Veh. No.

Yes No Number Quality Code

A. Constant Speed Phase

1. Stalls, pass-outs* upon part throttle ----- 1 2(13) ☐ (14) ☐ (15)
2. Acceleration Quality ----- ☐ (16)
3. Cruise Quality ----- ☐ (17)
4. Slight acceleration response (passing) ----- ☐ (18)
5. Idle quality at stop - w/air "on" (enter "9" if not equipped) ----- ☐ (19)
- w/air "off" ----- ☐ (19)

B. Acceleration from stop phase

6. Quality of acceleration under 1/4 throttle ----- ☐ (20)
7. Quality of acceleration under 1/2 throttle ----- ☐ (21)
8. Quality of acceleration under 2/3 throttle ----- ☐ (22)
9. Quality of acceleration under 3/4 throttle ----- ☐ (23)

C. Re-start Phase

10. Cranking time to start after 10 min. ----- sec. ☐ (24-25)
11. Idle quality after re-start ----- ☐ (26)

D. Cold start & idle phase (Dynamometer)

12. Initial cranking time ----- sec. ☐ (27-28)
13. Engine die-outs* after start ----- 1 2(29) ☐ (30)
14. Engine stalls after gear selection ----- 1 2(31) ☐ (32)
15. Hesitation, lag upon slight acceleration -- 1 2(33)
16. Idle quality ----- ☐ (34)

E. Drive-away Phase (Dynamometer)

17. Stalls, pass-outs upon slight acceleration to road speed ----- 1 2(35) ☐ (36)
18. Acceleration quality ----- ☐ (37)
19. Idle quality after 0.2 mile @ stop ----- ☐ (38)
20. Stalls, pass-outs upon slight acceleration to road speed ----- 1 2(39) ☐ (40)
21. Acceleration quality ----- ☐ (41)
22. Idle quality after 0.4 mile @ stop ----- ☐ (42)

Quality Code

5 = Excellent, 4 = Good, 3 = Fair, 2 = Poor, 1 = Fail

Preceding page blank

Reproduced from
best available copy.

APPENDIX J

LISTING OF DRIVEABILITY EVALUATIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

BN-1: AS RECEIVED; BN-2: AFTER CORR. OF OBVIOUS DISABLE; BN-3: REPLACE O2 BNHR;
BN-4: AFTER CORR. OF OTHER MALADJ OR DISABLE; BN-5: AFTER MAJOR TUNE-UP;
BN-6: ECM DISCNCTD; BN-7: O2 BNHR DISCNCTD;
BN-8: BATT DISCNCTD 10 MIN; O2 BNHR DISCNCTD; BN-9: CTS DISCNCTD; BN-0: TPS DISCNCTD

VEHICLE NUMBER	VIN	MAKE	MODEL	CID	BN	CONSTANT SPEED PHASE					ACCEL RESTART PHASE					COLD START PHASE (DYNAMOMETER)					DRIVE AWAY PHASE												
						1	2	3	4	5	6	7	8	9	10	11	12	13	13A	14	14A	15	16	17	17A	18	19	20	20A	21	21A		
0001	80	PONT	FIRE	305	1	2	0	5	5	5	5	5	5	5	5	5	1	2	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0001	80	PONT	FIRE	305	2	2	0	4	5	4	5	5	4	4	4	8	2	4	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0001	80	PONT	FIRE	305	3	2	0	4	5	4	5	5	4	4	4	8	2	4	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
9002	79	PLYM	VOLA	225	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
9003	79	PLYM	VOLA	225	1	2	0	3	4	3	4	4	4	4	3	4	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
9003	79	PLYM	VOLA	225	2	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0004	80	VOLK	RABB	97	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0005	80	CHEV	INPA	305	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0005	80	CHEV	INPA	305	2	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0005	80	CHEV	INPA	305	3	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
9006	79	DODG	STAN	225	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0007	80	CHEV	MONT	231	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
9008	79	PLYM	VOLA	225	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
9008	79	PLYM	VOLA	225	2	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0009	80	PLYM	VOLA	225	1	2	0	3	4	3	4	4	4	4	3	3	1	4	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0009	80	PLYM	VOLA	225	2	2	0	4	4	4	4	4	4	4	4	4	2	4	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0009	80	PLYM	VOLA	225	3	2	0	4	4	4	4	4	4	4	4	4	2	4	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0009	80	PLYM	VOLA	225	4	1	1	2	4	3	4	4	4	4	3	2	2	1	4	0	0	0	1	2	5	0	4	5	2	0	0	4	5
0009	80	PLYM	VOLA	225	5	2	0	3	4	4	4	4	4	4	3	2	2	1	4	0	0	0	1	2	5	0	4	5	2	0	0	4	5
0010	80	BUIC	SKYH	231	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0011	80	GLDS	CUTL	231	1	2	0	3	4	3	3	3	3	3	3	3	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0011	80	GLDS	CUTL	231	2	2	0	3	4	3	3	3	3	3	3	3	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0012	80	CHEV	CHEV	98	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0013	80	CHEV	CHEV	98	1	2	0	4	5	4	5	5	5	4	4	4	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0014	80	FORD	MUST	140	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0015	80	CHEV	CHEV	98	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0016	80	CHEV	CHEV	98	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0017	80	GLDS	CUTL	231	1	2	0	3	4	3	4	4	4	3	3	3	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0018	80	GLDS	STAR	151	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0019	80	CHEV	CHEV	98	1	2	0	3	4	4	4	4	4	4	4	4	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0020	80	BUIC	CENT	305	1	2	0	2	3	2	4	4	2	2	2	2	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0021	80	BUIC	LESA	231	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0022	80	CHEV	MONT	231	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0023	80	CADI	SEVI	350	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0024	80	BUIC	REGA	231	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0025	80	BUIC	SKYH	231	1	2	0	5	5	5	5	5	5	5	5	5	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0026	80	CHEV	CHEV	98	1	2	0	4	4	4	4	4	4	4	4	4	1	5	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0027	80	FORD	LTD	351	1	2	0	3	3	3	3	4	4	3	3	3	1	4	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0028	80	BUIC	CENT	231	1	2	0	5	4	4	4	4	4	2	5	5	1	4	0	0	0	0	2	5	0	4	5	2	0	0	4	5	
0029	80	CHEV	CHEV	98	1	2	0	5	5	4	5	5	5	5	5	5	1	4	0	0	0	0	2	5	0	4	5	2	0	0	4	5	

Reproduced from
best available copy.

APPENDIX J

LISTING OF DRIVEABILITY EVALUATIONS
ON INDIVIDUAL VEHICLES

LOS ANGELES

SN-1, AS RECEIVED; SN-2, AFTER CORR. OF OBVIOUS DISABLE; SN-3, REPLACE O₂ SENSOR;
SN-4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN-5, AFTER MAJOR TUNE-UP;
SN-6, ECM DISCNCTD; SN-7, O₂ SENSOR DISCNCTD;
SN-8, BATT DISCNCTD 10 MIN; O₂ SENSOR DISCNCTD; SN-9, CTS DISCNCTD; SN-0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	CONSTANT SPEED PHASE					ACCEL RESTART PHASE					COLD START PHASE (DYNAMOMETER)					DRIVE AWAY PHASE												
						1	1A	2	3	4	5	5A	6	7	8	9	10	11	12	13	13A	14	14A	15	16	17	17A	18	19	20	20A	21	22
0030	80	DATS	B10	146	1	2	0	5	5	5	4	5	5	5	5	1	5	1	2	0	0	2	0	2	2	4	5	0	0	0	0	5	5
0031	80	CHEV	CHEV	98	1	2	0	4	4	4	9	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0032	80	CHEV	CHEV	98	2	2	0	4	4	4	3	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0032	80	CHEV	CHEV	98	3	2	0	4	4	4	4	5	3	4	5	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0033	80	CHEV	CHEV	98	1	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0034	80	BUIC	CENT	231	1	2	0	4	4	4	4	4	4	4	4	1	5	2	2	0	0	2	0	2	2	5	0	0	0	0	0	5	5
0035	80	CHEV	CHEV	98	1	2	0	4	4	4	3	4	4	4	4	2	4	3	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0036	80	MERC	STAW	351	1	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0037	80	MERC	MARG	351	1	2	0	4	2	3	4	4	3	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	3
0038	80	CLDS	CUTL	305	1	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0039	80	BUIC	CENT	231	1	2	0	4	4	4	4	4	4	4	4	3	5	3	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0040	80	AHC	CONC	258	1	2	0	4	4	4	4	4	4	4	4	2	5	1	2	0	0	2	0	2	2	4	0	0	0	0	0	3	3
0041	80	AHC	STAW	258	1	2	0	3	3	3	3	3	3	3	3	1	3	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0042	80	FORD	LTD	351	1	2	0	5	5	5	5	5	4	5	5	2	5	1	2	0	0	2	0	2	2	5	0	0	0	0	0	5	5
0043	80	BUIC	LESA	231	1	2	0	4	4	4	9	4	4	4	4	1	5	1	2	0	0	2	0	2	2	5	0	0	0	0	0	5	5
0044	80	FORD	STAW	200	1	2	0	4	4	4	9	4	4	4	4	1	5	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0045	80	CLDS	CUTL	305	1	2	0	3	3	3	3	3	2	3	3	1	5	1	1	1	0	0	2	0	2	5	0	0	0	0	0	5	5
0046	80	FORD	MUST	200	1	2	0	5	4	4	9	4	5	5	5	1	5	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0046	80	FORD	MUST	200	2	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0047	80	DATS	B10	146	1	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0048	80	FORD	STAW	200	1	2	0	5	5	5	4	4	5	5	5	1	5	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0049	80	BUIC	CENT	231	1	2	0	3	5	4	4	4	3	3	4	1	5	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0050	80	FORD	FAIR	200	1	2	0	4	4	5	4	5	4	5	5	1	5	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0051	80	FORD	LTD	351	1	2	0	4	4	5	4	5	4	5	5	2	5	1	2	0	0	2	0	2	2	5	0	0	0	0	0	5	5
0052	80	CLDS	CUTL	305	1	2	0	4	4	5	4	5	5	5	5	1	5	1	2	0	0	2	0	2	2	5	0	0	0	0	0	5	5
0053	80	FORD	FAIR	200	1	2	0	3	4	2	3	3	3	3	3	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0054	80	FORD	MUST	200	1	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0055	80	CLDS	CUTL	305	1	2	0	4	4	4	4	4	4	3	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0056	80	CADI	SEVI	350	1	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0057	80	LINC	CONT	351	2	2	0	5	5	5	5	5	5	5	5	1	5	1	2	0	0	2	0	2	2	5	0	0	0	0	0	5	5
0057	80	LINC	CONT	351	2	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0058	80	CHEV	CAMA	305	1	2	0	3	4	3	3	3	3	3	3	1	3	1	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0058	80	CHEV	CAMA	305	2	2	0	4	4	4	4	4	4	4	4	1	4	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0059	80	FORD	FAIR	200	1	2	0	4	4	4	4	4	4	4	4	2	4	2	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0060	80	FORD	FAIR	200	1	2	0	4	4	4	4	4	4	4	4	1	5	1	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0061	80	FORD	STAW	351	1	2	0	4	4	4	5	4	5	4	4	2	4	2	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0061	80	FORD	STAW	351	2	2	0	4	4	4	5	4	5	4	4	2	4	2	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4
0061	80	FORD	STAW	351	3	2	2	0	5	5	5	5	5	5	5	2	5	2	2	0	0	2	0	2	2	4	0	0	0	0	0	5	5
0062	80	CHEV	CAMA	305	1	2	2	0	4	4	4	5	5	5	5	2	5	2	2	0	0	2	0	2	2	4	0	0	0	0	0	4	4

Reproduced from
best available copy.

APPENDIX J

LISTING OF DRIVEABILITY EVALUATIONS ON INDIVIDUAL VEHICLES

LOS ANGELES

SN=1, AS RECEIVED; SN=2, AFTER CORR. OF OBVIOUS DISABLE; SN=3, REPLACE Q2 SNR;
SN=4, AFTER CORR. OF OTHER MALADJ OR DISABLE; SN=5, AFTER MAJOR TUNE-UP;
SN=6, ECH DISCNCTD; SN=7, Q2 SNR DISCNCTD;
SN=8, BATT DISCNCTD 10 MIN; Q2 SNR DISCNCTD; SN=9, CTS DISCNCTD; SN=0, TPS DISCNCTD

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SN	CONSTANT SPEED PHASE					ACCEL RESTART PHASE					COLD START PHASE (DYNAMOMETER)					DRIVE AWAY PHASE													
						1	1A	2	3	4	5	5A	6	7	8	9	10	11	12	13	13A	14	14A	15	16	17	17A	18	19	20	20A	21	22	
0094	80	CHEV	CAPR	231	1	2	0	3	3	3	4	4	3	3	2	2	1	4	1	2	0	0	2	0	1	3	2	0	0	4	2	0	3	4
0095	80	CHEV	MAL1	231	1	2	0	5	5	5	5	5	5	5	5	5	1	3	3	2	0	2	0	2	0	2	0	0	4	3	2	0	4	3
0095	80	CHEV	MAL1	231	2	2	0	3	4	3	3	3	3	3	3	2	1	5	2	2	0	2	0	2	0	2	0	4	5	2	0	4	5	
0096	80	CADI	FLEE	368	1	2	0	4	5	5	5	5	5	5	5	5	1	5	2	2	0	2	0	2	0	2	0	4	5	2	0	4	5	
0096	80	CADI	FLEE	368	2	2	0	3	5	4	5	5	5	5	5	5	1	4	1	2	0	2	0	2	0	2	0	4	4	2	0	3	4	
0097	80	CADI	DEVI	368	1	2	0	4	5	4	5	5	5	5	5	5	1	5	1	2	0	1	2	0	1	4	2	0	3	4	2	0	3	4
0098	80	CADI	FLEE	368	1	2	0	4	5	4	4	4	4	4	4	4	1	5	1	1	1	2	0	1	3	2	0	3	4	2	0	4	4	
0098	80	CADI	FLEE	368	6	2	0	4	4	3	5	5	5	5	5	5	1	5	4	2	0	2	0	2	0	2	0	4	5	2	0	4	5	
0098	80	CADI	FLEE	368	7	2	0	5	5	5	5	5	5	5	5	5	1	4	1	1	2	0	2	0	1	3	2	0	4	4	2	0	4	4
0098	80	CADI	FLEE	368	8	2	0	4	4	3	4	4	4	4	4	4	1	4	1	1	2	0	2	0	1	2	0	4	4	2	0	4	4	
0098	80	CADI	FLEE	368	9	2	0	4	4	4	4	4	4	4	4	4	1	4	1	2	0	2	0	1	2	0	3	4	2	0	4	4	4	
0099	80	FORD	LTD	351	1	2	0	3	4	4	4	4	4	4	4	4	1	4	1	2	0	2	0	2	0	2	0	4	4	2	0	3	4	4
0100	80	FORD	LTD	351	1	2	0	3	4	3	4	4	4	4	4	4	1	4	1	2	0	2	0	1	3	2	0	3	4	2	0	3	4	4
0101	80	FORD	LTD	351	1	2	0	4	4	4	4	4	4	4	4	4	1	4	1	2	0	2	0	2	0	2	0	4	5	2	0	4	5	4
0102	80	CADI	DEVI	368	1	2	0	4	5	4	4	4	4	4	4	4	1	5	1	2	0	2	0	2	0	2	0	4	5	2	0	4	5	4
0102	80	CADI	DEVI	368	6	2	0	5	5	5	5	5	5	5	5	5	1	5	1	2	0	2	0	1	3	2	0	4	5	2	0	4	5	4
0102	80	CADI	DEVI	368	7	2	0	4	4	4	4	4	4	4	4	4	2	3	1	2	0	2	0	1	3	2	0	4	4	2	0	4	4	4
0102	80	CADI	DEVI	368	8	2	0	5	5	5	5	5	5	5	5	5	1	4	1	1	1	1	1	1	1	2	0	4	4	2	0	4	4	4
0102	80	CADI	DEVI	368	9	2	0	4	5	4	3	3	4	4	4	4	1	4	1	1	1	1	1	1	1	2	0	4	4	2	0	4	4	4
0103	80	CADI	SEVI	350	1	2	0	4	4	3	4	4	4	4	4	4	1	4	2	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0104	80	CADI	SCIR	97	1	2	0	5	5	5	9	5	5	5	5	5	1	5	2	1	1	2	0	2	0	2	0	4	4	2	0	4	4	4
0105	80	CADI	SEVI	350	1	2	0	4	4	4	4	4	4	4	4	4	1	4	2	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0106	80	DODG	GNH	105	1	2	0	3	4	4	4	4	4	4	4	4	2	3	1	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0107	80	PLYM	VOLA	225	1	2	0	3	4	3	9	4	4	4	4	4	1	4	1	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0108	80	VOLK	SCIR	97	1	2	0	4	4	4	4	4	4	4	4	4	1	4	2	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0109	80	CHRY	CORD	318	1	2	0	3	4	3	4	4	4	4	4	4	1	4	1	2	0	2	0	1	3	2	0	4	4	2	0	4	4	4
0110	80	CHRY	CORD	318	1	2	0	3	4	3	4	4	4	4	4	4	1	4	1	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0110	80	CHRY	CORD	318	2	2	0	4	4	4	4	4	4	4	4	4	1	4	2	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0110	80	CHRY	CORD	318	3	2	0	3	4	3	3	4	3	3	3	3	1	2	1	2	0	2	0	1	3	2	0	4	4	2	0	4	4	4
0110	80	CHRY	CORD	318	4	2	0	3	4	3	4	4	4	4	4	4	1	4	1	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0111	80	DODG	HIRA	318	1	2	0	4	4	4	4	4	4	4	4	4	2	4	2	2	0	2	0	1	3	2	0	4	4	2	0	4	4	4
0112	80	AUDI	5000	131	1	2	0	4	4	4	4	4	4	4	4	4	2	4	2	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0113	80	AUDI	4000	97	1	2	0	4	4	4	4	4	4	4	4	4	1	5	1	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0114	80	CADI	DEVI	368	1	2	0	4	4	4	4	4	4	4	4	4	1	4	1	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0114	80	CADI	DEVI	368	0	2	0	4	4	4	4	4	4	4	4	4	1	4	1	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0115	80	CADI	DEVI	368	1	2	0	4	4	4	4	4	4	4	4	4	1	3	1	1	1	1	1	1	1	2	0	4	4	2	0	4	4	4
0115	80	CADI	DEVI	368	0	1	0	5	5	5	5	5	5	5	5	5	1	3	1	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4
0116	80	CADI	COUP	368	1	2	0	4	5	4	5	5	5	5	5	5	1	4	2	2	0	2	0	2	0	2	0	4	4	2	0	4	4	4

APPENDIX K

LISTING OF EMISSION COMPONENT INSPECTION INFORMATION

ON INDIVIDUAL VEHICLES

Legend

Emission Components Inspected

INDUC	Induction System
FUEL	Fuel Subsystem - Carburetor & Fuel Systems
CHOKE	Carburetor & Fuel Systems - Choke Subsystem
IGN	Ignition System
EGR	EGR System
AIR	Air Pump System
PCV	PCV System
EXH	Exhaust System
EVAP	Evaporative Control System
MISC	Engine Assembly - Miscellaneous Accessories
3-WAY	3-Way Catalyst Systems
MAN HRS	Time required to complete inspection

System Evaluation Code

1	No Malperformance
2	Some Malperformance
3	Not Applicable

Preceding page blank

Reproduced from
best available copy.

APPENDIX K

LISTING OF EMISSION COMPONENTS INSPECTION INFORMATION
ON INDIVIDUAL VEHICLES

LOS ANGELES

EVALUATION CODE: 1 = NO MALPERFORMANCE, 2 = SOME MALPERFORMANCE, 3 = NOT APPLICABLE

VEH	YR	MAKE	MODEL	CID	INDUC	FUEL	CHOKE	IGN	ECR	AIR	PCV	EXH	EVAP	MISC	3-WAY	MAN HRS
0001	80	PONT	FIRE	305	1	2	1	1	1	1	1	1	1	1	2	4.0
9002	79	PLYM	VOLA	225	1	1	1	1	1	1	1	1	1	1	1	2.0
9003	79	PLYM	VOLA	225	1	2	2	1	1	1	1	1	1	1	1	3.0
0004	80	VOLK	RABB	97	1	1	1	1	3	3	1	1	1	1	2	3.0
0005	80	CHEV	IMPA	305	1	2	1	1	1	1	1	1	1	1	2	4.0
9006	79	DODG	STAW	225	1	2	2	1	1	1	1	1	1	1	1	2.5
0007	80	CHEV	MONT	231	1	2	1	1	1	1	1	1	1	1	1	3.0
9008	79	PLYM	VOLA	225	1	2	1	1	1	1	1	1	1	1	2	3.0
0009	80	PLYM	VOLA	225	1	2	1	1	1	1	1	1	2	2	2	3.0
0010	80	BUIC	SKYH	231	1	1	1	1	1	1	1	1	1	1	1	3.0
0011	80	OLDS	CUTL	231	1	2	1	1	1	1	1	1	1	1	1	3.0
0012	80	CHEV	CHEV	98	1	1	1	1	1	1	1	1	1	1	1	2.5
0013	80	CHEV	CHEV	98	1	1	1	1	1	1	1	1	1	1	1	3.0
0014	80	FORD	MUST	140	1	1	1	2	1	1	1	1	1	1	1	3.0
0015	80	CHEV	CHEV	98	1	2	1	1	1	1	1	1	1	1	2	3.0
0016	80	CHEV	MONT	305	1	1	1	1	1	1	1	1	1	1	1	2.5
0017	80	OLDS	CUTL	231	1	2	1	1	1	1	1	1	1	1	1	2.0
0018	80	OLDS	STAR	151	1	1	1	1	1	1	1	1	1	1	1	2.0
0019	80	CHEV	CHEV	98	1	1	1	1	1	3	1	1	1	1	1	2.5
0020	80	BUIC	CENT	305	1	1	1	1	1	1	2	1	1	1	1	2.5
0021	80	BUIC	LESA	231	1	1	1	1	1	1	1	1	1	1	1	2.5
0022	80	CHEV	MONT	231	1	1	1	2	1	1	1	1	1	1	1	2.0
0023	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	2.5
0024	80	BUIC	REGA	231	1	1	1	1	1	1	1	1	1	1	1	2.5
0025	80	BUIC	SKYH	231	1	1	1	1	1	1	1	1	1	2	1	2.5
0026	80	CHEV	CHEV	98	1	1	1	1	1	1	1	1	1	1	1	2.5
0027	80	FORD	LTD	351	1	1	1	1	1	1	1	1	1	1	1	2.5
0028	80	BUIC	CENT	231	1	1	1	1	1	1	1	1	1	1	1	2.5
0029	80	CHEV	CHEV	98	1	1	1	1	1	1	1	1	1	1	1	2.0
0030	80	DATS	B10	146	1	1	1	1	3	3	1	1	1	1	1	2.0
0031	80	CHEV	CHEV	98	1	1	1	1	2	1	1	1	1	1	1	2.0
0032	80	CHEV	CHEV	98	1	1	1	1	1	1	1	1	1	1	1	2.0
0033	80	CHEV	CHEV	98	1	1	1	1	1	1	1	1	1	1	1	2.0
0034	80	BUIC	CENT	231	1	1	1	1	1	1	1	1	1	1	1	2.0
0035	80	CHEV	CHEV	98	1	1	1	1	1	1	1	1	1	1	1	2.5
0036	80	MERC	STAW	351	1	1	1	1	1	1	1	1	1	1	1	2.5
0037	80	HARC	MARG	351	1	1	1	1	1	1	1	1	1	1	1	2.5
0038	80	OLDS	CUTL	305	1	1	1	1	1	1	1	1	1	1	2	3.0
0039	80	BUIC	CENT	231	1	1	1	1	1	1	1	1	1	1	1	2.5
0040	80	AMC	CONC	258	1	1	1	1	1	1	1	1	1	1	1	2.5

Reproduced from
best available copy.

APPENDIX K
LISTING OF EMISSION COMPONENTS INSPECTION INFORMATION
ON INDIVIDUAL VEHICLES
LOS ANGELES

EVALUATION CODE: 1 = NO MALPERFORMANCE, 2 = SOME MALPERFORMANCE, 3 = NOT APPLICABLE																		
VEH	YR	MAKE	MODEL	CID	INDUC	FUEL	CHOKE	IGN	SYSTEM EVALUATION			PCV	EXH	EVAP	MISC	3-MAY	MAN	HRS
0041	80	AMC	STAW	258	1	1	1	2	1	1	1	1	1	1	1	1	1	2.5
0042	80	FORD	LTD	351	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0043	80	BUIC	LESA	231	2	1	1	1	1	1	1	1	1	1	1	1	1	4.0
0044	80	FORD	STAW	200	1	1	1	1	1	1	1	1	1	1	1	1	1	3.0
0045	80	OLDS	CUTL	305	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0046	80	FORD	MUST	200	1	1	1	1	1	1	1	1	1	1	1	1	1	2.0
0047	80	DATS	B10	146	1	1	1	1	3	1	1	1	1	1	1	1	1	2.5
0048	80	FORD	STAW	200	1	1	1	1	1	1	1	1	1	1	1	1	1	2.0
0049	80	BUIC	CENT	231	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0050	80	FORD	FAIR	200	1	1	1	1	1	1	1	1	1	1	1	1	1	3.0
0051	80	FORD	LTD	351	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0052	80	OLDS	CUTL	305	1	1	1	1	1	1	1	1	1	1	1	1	1	3.0
0053	80	FORD	FAIR	200	2	1	1	2	1	1	1	1	1	1	1	1	1	4.0
0054	80	FORD	MUST	200	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0055	80	OLDS	CUTL	305	1	1	1	1	1	1	1	1	1	1	1	1	1	3.0
0056	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0057	80	LINC	CONT	351	1	1	1	1	1	1	1	1	1	1	1	1	1	3.0
0058	80	CHEV	CAMA	305	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0059	80	FORD	FAIR	200	1	1	2	1	1	1	1	1	1	1	1	1	1	4.8
0060	80	FORD	FAIR	200	1	1	1	1	1	1	1	1	1	1	1	1	1	4.0
0061	80	FORD	STAW	351	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0062	80	CHEV	CAMA	305	1	2	1	1	1	1	1	1	1	1	1	1	1	3.0
0063	80	CADI	ELDO	350	1	1	1	1	1	1	1	1	1	1	2	1	1	2.5
0064	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	1	1	5.0
0065	80	FORD	FAIR	200	1	1	1	1	1	1	1	1	1	1	1	1	1	3.0
0066	80	FORD	STAW	200	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0067	80	CADI	SEVI	368	1	2	1	1	1	1	1	1	1	1	1	1	1	2.5
0068	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0069	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0070	80	CADI	ELDO	350	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0071	80	CHEV	CAMA	305	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0072	80	LINC	MRK6	351	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0073	80	DATS	B10	146	1	1	1	1	1	1	1	1	1	1	1	1	1	2.7
0074	80	OLDS	CUTL	305	1	1	1	1	3	1	1	1	1	1	1	1	1	2.5
0075	80	CHRY	CORD	318	2	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0076	80	CHEV	CHEV	98	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0077	80	OLDS	CUTL	305	1	1	1	1	2	1	1	1	1	1	1	1	1	4.4
0078	80	OLDS	CUTL	305	1	1	1	1	1	1	1	1	1	1	1	1	1	3.0
0079	80	OLDS	CUTL	305	1	1	1	1	1	1	1	1	1	1	1	1	1	2.5
0080	80	DODG	OMNI	105	1	1	1	1	1	1	1	1	1	1	1	1	1	2.0

Reproduced from
best available copy.

APPENDIX K

LISTING OF EMISSION COMPONENTS INSPECTION INFORMATION ON INDIVIDUAL VEHICLES

LOS ANGELES

EVALUATION CODE: 1 = NO MALPERFORMANCE, 2 = SOME MALPERFORMANCE, 3 = NOT APPLICABLE

VEH	YR	MAKE	MODE	CID	INDUC	FUEL	CHOKE	IGN	EGR	AIR	PCV	EXH	EVAP	MISC	3-MAY	MAN HRS
0081	80	DATS	280Z	168	1	2	1	1	3	3	1	1	1	1	1	3.0
0082	80	PLYM	HQRI	105	1	1	1	1	1	1	1	1	1	1	1	2.8
0083	80	CHRY	CORP	318	1	2	1	1	1	1	1	1	1	1	1	3.9
0084	80	PLYM	HQRI	105	1	2	1	1	1	1	1	1	2	1	1	3.9
0085	80	CADI	DEVI	368	1	1	2	1	1	1	1	2	1	1	1	4.3
0086	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	4.0
0087	80	PLYM	HQRI	105	1	1	1	1	1	1	1	1	1	1	1	2.8
0088	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	4.2
0089	80	CHRY	LEBA	225	1	1	2	1	1	1	1	1	1	1	1	2.0
0090	80	CADI	DEVI	368	1	1	1	1	1	1	1	1	2	1	1	2.5
0091	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	2.5
0092	80	CADI	ELDO	350	1	1	1	1	1	1	1	1	1	1	1	2.7
0093	80	CHEV	MALI	231	1	1	1	1	1	1	1	1	1	1	1	3.0
0094	80	CHEV	CAPR	231	1	2	1	1	1	1	1	1	1	1	1	3.2
0095	80	CHEV	MALI	231	1	1	2	1	1	1	1	1	1	1	2	4.0
0096	80	CADI	FLEE	368	1	1	1	1	1	1	1	1	1	1	1	3.4
0097	80	CADI	DEVI	368	1	1	2	1	1	1	1	1	1	1	1	2.8
0098	80	CADI	FLEE	368	1	1	1	1	1	1	1	1	1	1	1	3.5
0099	80	FORD	LTD	351	1	1	1	1	1	1	1	1	1	1	2	3.0
0100	80	FORD	LTD	351	1	1	1	1	1	1	1	1	1	1	1	3.5
0101	80	FORD	LTD	351	1	1	1	1	1	1	1	1	1	1	1	4.0
0102	80	CADI	DEVI	368	1	1	2	1	1	1	1	1	1	1	1	2.5
0103	80	CADI	SEVI	350	1	1	1	1	3	3	1	1	1	1	1	2.0
0104	80	VOLK	SCIR	97	1	1	1	1	1	1	1	1	1	1	1	3.2
0105	80	CADI	SEVI	350	1	1	1	1	1	1	1	1	1	1	1	2.0
0106	80	DODG	OMNI	105	1	2	1	1	1	1	1	1	1	1	1	2.9
0107	80	PLYM	VOLA	225	1	1	1	2	1	1	1	1	1	1	1	2.0
0108	80	VOLK	SCIR	97	1	1	1	1	3	3	1	1	1	1	1	2.0
0109	80	CHRY	CORP	318	1	1	1	1	1	1	1	1	1	1	1	3.0
0110	80	CHRY	CORP	318	1	2	1	2	2	1	1	1	1	1	2	3.0
0111	80	DODG	MIRA	318	1	1	1	1	1	1	1	1	2	1	1	2.0
0112	80	AUDI	5000	131	1	1	1	1	3	3	1	1	1	1	1	2.5
0113	80	AUDI	4000	97	1	1	1	1	1	1	1	1	1	1	1	2.5
0114	80	CADI	DEVI	368	1	1	1	1	1	1	1	1	1	1	1	2.9
0115	80	CADI	DEVI	368	1	2	2	1	1	1	1	1	1	1	1	2.3
0116	80	CADI	COUP	368	1	1	2	1	1	1	1	1	1	1	1	2.8